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WORK FOR MARCH.

As the time has arrived when every culturist's plans for the season should be matured—when all his arrangements should have been completed, in order that there may be no hindrances occurring to interrupt him in a vigorous prosecution of all his farm operations, we shall endeavor, in a friendly way, to tell all what should claim precedence during the present month. But before we begin our enumeration of the things to be done, we would be permitted to admonish all, that system, order, and regularity, in whatever may be done, are indispensable to success,—that whatever may be begun, should be completed before a second thing is undertaken—that whatever may be done should be done well, as half work in farming is never to be tolerated, as it can only end in disappointment. No farmer should undertake to cultivate more land than he can properly attend to, as every acre so cultivated, must necessarily prove to be a drawback upon his profits. Nothing but the most imperious necessity should induce any one to put more acres in corn than he can manage well, unless the soil is already in a state of such fertility as to justify the belief of a productive yield. Corn being a crop that requires much labor and great strength of soil to ensure profit, should never extensively be undertaken without due calculation being made as to results. The ambition of having many broad acres covered with it, without one should have the ability to do justice both in putting in the crop and tending it afterwards, is that kind of ambition, which, in its gratification, neither fills the pocket nor adds to the reputation of the agriculturist, whilst it most generally tends to the impoverishment of the soil.

With these premonitory remarks we shall direct attention to what should be done

ON THE FARM.

Sowing of Clover Seed.—As we hold it to be an agricultural truth that none can gainsay, that the fertility of no soil can be kept up where clover does not form

one of the items in the system of rotation, we advise all who may not have already done so, to sow 12 or 15 lbs. of clover seed on every acre of land which they may have set in wheat. If the wheat is much winter killed, after sowing the clover seed thereon, we would farther advise them to pass a light harrow over the ground and then to roll it. These processes we feel certain will serve to destroy much grass and weeds, act as a cultivation to the wheat plants, encourage a disposition to tiller in them, and fill up many places that would otherwise remain blank. What roots may be torn up by the harrow will be restored to the earth by the roller, so that such roots will not only grow again, but each joint which may be thus pressed into the soil will form a series of roots and send forth its plants to add to the product of the field.

While we are thus recommending the sowing of clover seed, we feel it due to our sense of candor to reiterate here, that clover cannot be successfully grown in a soil from which lime is absent, and to state that so soon as the wheat crop may be harvested, every field which may be thus situated should be both limed and plastered. Where it may not be convenient for the owner to put on a full dose of lime at that time, we would recommend the application of 10 bushels per acre and one of plaster. With this moderate dose of these minerals, if the land be rich in vegetable matter, a fair growth of clover may be expected. But in advance we will here admonish all, not to suffer stock of any kind to depasture on the field during the first year, as should they do so, their clover will be destroyed, it being indispensable that the plants should have that time to become firmly rooted in the soil.

Clover Fields.—Sow over every acre you may have set in clover a bushel of plaster—sow early in the morning while the dew is on the ground.

Meadows.—If you have any meadows that are tight bound and which yielded but indifferently last season, so soon as the frost is out of the ground harrow them thoroughly, then sow a gallon of timothy seed per

acre, and spread thereon five or ten bushels of lime or ashes per acre, or one bushel of plaster, and finish by rolling.

Old Fields.—As most of the old estates in our country are annoyed by these unsightly appendages, we will remark, that if they be under fence and the cattle be kept off they may be covered with verdure in one season by the following process: Harrow until a tilth be raised, then sow on each acre a compost made of 5 bushels of lime, 5 bushels of ashes and 1 of plaster. Thus treated, if given one year's protection from the stock, they may be converted into fair pastures, relieve the eye of the owner, and made the source of profit.

Preparation of Corn Ground.—As every corn grower should make his arrangements so that he may be able to plant his corn at the earliest period allowable in the latitude in which he may be located, he should at once go ahead, haul out his manure, spread and plough it in so soon as he may be justified in doing so by the weather. When that time may be, in a country like ours, must be determined by the judgment of the corn planter himself,—all that we can say upon the subject is, that each should make it a moral duty to be forward in his work—to see that the manure when hauled out is evenly spread, and ploughed in, if possible, when spread. Whenever it may be found impracticable to make the ploughing keep pace with the spreading, a bushel of plaster should be sown on each acre on which manure may be thus spread. Indeed, it would be better that plaster were sown on all the manure, as it gives fixidity to it, prevents the loss of its most active nutrient principle, and prolongs its action.

With regard to the quantity of manure to be applied to an acre of corn land, it is difficult to prescribe what is the right quantity. The corn plant is a greedy feeder, and is difficult to be over-fed. It may, however, be very safely affirmed, that 20 double horse cart loads is a reliable allowance to be given to an acre grown in corn. With that quantity, under the influence of a favorable season, deep ploughing and cleanly culture, a large crop may, with certainty, be calculated upon.

As to distance of rows, that is with corn growers so much of a mooted point, that it might be considered almost an invidious task for any one to undertake to say what is the right distance. Without assuming such an extreme position, as would be that of undertaking to settle a point that has been debated for more than a century without any conclusion being arrived at, we may, in a spirit of humility, be permitted to state that, in the course of our practice, on good ground, well manured, we have found 3 feet each way a very eligible distance. This allows ample room to work the corn until it is fit to be laid by, as also for a free circulation of sun and air. At this distance we have left 2 stalks in a hill and found it to answer well. This, however, would be too close on

poor land, unless the manuring were carried to a very high point—therefore, the question of distance must, of necessity, be left to the grower, who alone is able to judge to what extent his land will bear being taxed.

With regard to the depth of ploughing for corn, we go for the utmost depth that may be found practicable to be reached by the power and capacity of the team, as we believe the deeper the pasture the more luxuriant will the corn grow, and the better will it be able to resist the influences of excessive rain and drought. We go, too, for exact ploughing and thorough pulverization, the avoidance of all balks, and the breaking of every clod.

In respect to the application of *Lime to the Corn crop* we do not know that we can perform a more acceptable service to our patrons than by copying the views of Dr. William Darlington, of West Chester, Pa., a gentleman who, besides being a successful practical farmer, possesses as much scientific knowledge as any other individual in our country, and is, withal, passionately devoted to the cause of Agriculture. The experience then of such a man is invaluable, because it comes commended to us by one competent to advise, and whose predilections are the strongest guaranty that could be asked, that his opinions are founded in honesty. He says—

"The quantity of lime per acre which can be used advantageously varies with the condition and original character of the soil. Highly improved land will bear a heavier dressing than poor land. On a soil of medium condition, the usual dressing is forty or fifty bushels per acre. A deep rich soil or limestone land in the great Valley, will receive seventy to eighty (and I am told even one hundred) bushels to the acre, with advantage. On very poor land twenty to thirty bushels per acre is deemed most advantageous to commence with. It is usually repeated every five or six years—i. e., every time the field comes in turn to be broken up with the plow; and as the land improves, the quantity of lime is increased. The prevailing practice here is to plough down the sod or lay in the fall or early in the spring; harrow it once, and then spread lime (previously slacked to a powder) preparatory to planting the field in corn. Every field, in rotation, receives this kind of dressing; and as our farms are mostly divided into about half a dozen fields, the dressing, of course, comes once in six years, more or less, according to the number of the fields. Some enterprising farmers, however, give their fields an intermediate dressing on the sod, after they come into grass, which I consider an excellent practice, tending rapidly to improve the condition of the land."

In speaking of the state in which the lime is applied, he says—

"It is usually obtained in a caustic state from the kilns, deposited in heaps in the fields where it is to be spread, and water sufficient to slack it to a powder is then thrown upon it. As soon as slacked it is loaded into carts and men with shovels distribute it as equally as possible over the ground. It is generally considered best to put it on the ground whilst it is fresh or warm, as the phrase is; and it is certainly easier to spread it equally while in a light pulverized

state than after it gets much wet with rains. I am inclined to think, too, it is better for the land when applied fresh from the kiln."

In answer to a question put to him, as "to what crops lime is most advantageously applied, and at what seasons," Dr. Darlington says—

"It is usually applied, as already intimated, to the crop of *Indian corn*, in the spring of the year. * * Occasionally it is applied preparatory to sowing wheat, in autumn. When used as a *top dressing*, on the sod, it is generally applied in the fall—say November. The prevailing impression is, that it is most advantageously applied to the *Indian corn crop*: and hence the general practice. But the truth is, it is highly advantageous at any and at all seasons—and our shrewd old farmers have a saying—"Get your lime on for your corn crop if you can—but be sure you get it on the land some time in the year."

As to the mode of spreading and incorporating the lime, he remarks—

"The lime is spread as equally as possible over the field, and the ground is well harrowed in different directions, in order to incorporate the lime with the soil."

We believe *lime* to be essential to the successful culture of corn—that where it may not be pre-existing in the soil, that it should be applied; and as there may be situations where lime may not be obtainable, we will remark, that either *ashes* or *marl* will answer in its stead.

As to the *culture* of corn we are not vain enough to suppose that we could prescribe any mode that would even be an approximation to the best plan. Most corn planters have peculiar views of their own, while almost every neighborhood has its particular method. Whilst then, such diversity of opinion exists upon the subject of what is the best plan, it may be the part of modesty in us to be cautious in what we may say. So far as our observation and experience enables us to speak, we would remark, that we believe that corn should never be worked with the plough after it is a foot high; that we have no faith in large *hills*, or in the cutting of the roots of the corn plants with the plough; that the great object in every corn grower should be to keep down all weeds and grass, and keep the soil open to the action of sun, air, dew, and rain, and that, after the first ploughing, these objects can be attained by the use of the cultivator better than with the plough. This is our honest opinion, founded on experience; and while we feel ourself called upon by a sense of candor to express it, we do it with the most perfect deference to the opinions of others.

The question as to the number of times which corn should be worked, has often been asked us, and we have as often replied, that that must be governed by circumstances,—that, until laid by, it must be kept entirely free from weeds and grass, and the soil open to atmospheric influences. Keeping these land marks in view, no one need be at a loss to tell when and how often to work his corn.

Outs.—There is perhaps no crop of such uncertain

product. The fault is not, however, with the grain, but with the grower. To this crop is assigned, most generally, the poorest field on the farm, and under such circumstances, how can it be expected to yield otherwise than in a stinted measure. But give the oat a fair chance and it will vindicate its claim to being a remunerating crop. We have well attested facts before us of from 50 to 100 bushels to the acre being grown, and we do know two cases in which fields of 40 acres averaged 80 bushels to the acre. These crops were grown on soils which were fertile.

It may be opportune to remark here, that lands intended for oats should be got ready as soon as the frost is well out of them. They should be ploughed well and deeply, and thoroughly pulverized with the harrow and roller. Two bushels of oats to the acre should then be sown and harrowed in several times. This being done, a heavy roller should be passed over the field, so as to consolidate the soil. If the land should not be in good heart, 2 bushels of salt and 1 of plaster should be sown thereon per acre. It is always best to sow oats early. Those thus sown, uniformly yield the most grain.

Barley.—As soon as the frost is out of the ground is the time to put this grain in. It delights most in a deep sandy loam, which must be in good heart. It is useless to attempt to grow it on exhausted lands. The ground should be well prepared, and 2 bushels of seed to the acre sown. In soils adapted to its culture, in good heart, barley is a profitable crop; but he who expects a large return from that or any other grain from poverty stricken fields, will be sure to be disappointed. Any kind of grass seed adapted to spring culture may be sown with it. Barley commands a good market price, is readily sold to the brewers, makes good alternate food for stock, while its straw is excellent for cattle—and, comparatively speaking, its cultivation is confined to but a few of the States to any considerable extent. It is a much more certain crop than rye—yields more to the acre, and will sell for more money.

Hauling out Manure.—We have spoken of this work under the head of "Preparation of corn grounds," and only revert to it under its proper head to say, that, as it is a heavy job, it should meet with early attention.

Grain Fields.—For our remarks on this subject we refer to those under the head of "Sowing Clover seed."

Lime.—We can only repeat here what we have often written before, that no farm can be considered as permanently improved until it shall have been limed. Let no one despair of accomplishing this duty, because he may not be able to lime all his farm at once. If he has not money to buy lime for 100 or 50 acres, let him be content to begin with 5 acres; that quantity once limed, he will find the means to lime 10 acres the next year, and so the succeeding one.

Milk Cows.—This is a trying month with cows in milk, as well as with those in calf. Attention should be directed towards them—their food should be increased in quantity, while care must be paid to see that they receive daily allowances of something succulent.

Stock generally.—Working, as well as store animals, must be carefully attended to. Regularity in feeding, watering, cleaning, and salting, as well as good lodging, are especially desirable at this season of the year.

Sheep.—These should now receive daily, in addition to their allowances of hay, a gill each of some kind of meal or a pound of roots. They should receive salt, tar, and pine boughs to browse upon.

Early Potatoes.—The earliest period at which the frost is out of the ground and it can be properly ploughed and pulverized, is the right time to plant early potatoes. Before being planted, the seed potatoes should be cut into sets, and they dried either in ashes, lime or plaster. If this be done a week or two before being planted so much the better. The ground should be liberally manured and thoroughly pulverized. It might be well to spread lime over the manure in the drills before covering up the potato sets. We do not recommend lime as a panacea for the rot or any thing else connected with the disease of potatoes, but purely because it is an excellent manure—for we eschew all specifics for the potato malady.

Turnep Beds.—These should be looked to.

Root Crops.—It is too soon to sow *Beet*, *Parsnip*, *Carrot*, *Ruta Baga* and *Mangel Wurtzel* seed; but it is not too soon to begin making arrangements to do so—therefore, we thus early apprise you of them, in order that you may provide yourself with manure against the proper time to sow the seeds of these excellent roots. The turnip culture in England has added millions to the agricultural resources of that kingdom, and like attention here to general root culture, would add millions to the resources of our country.

Fences.—These should undergo thorough examination and repair, so that every temptation be taken away from stock to commit depredations.

Orchards.—The trees in the orchard should be carefully examined and every dead limb carefully cut off. The wound should be smoothed off and a plaster of clay, cow dung and lime, in equal portions, applied to it, or a plaster may be compounded thus—2 parts clay, 1 part lime, and 1 part tar, to be thoroughly mixed together before being applied. The decayed limb should be cut down into sound wood. If the trees have not already been thus treated, paint them with a mixture composed of 1 lb. flour sulphur, 1 quart salt, and 1 gallon of soft soap.

Planting Orchards and Ornamental Trees.—So soon as the frost is out of the ground is the time for this work. No young orchard should be set out in a worn out field, until that field is liberally manured—and the ground should be subsoiled. The holes should be dug of sufficient dimensions to admit the

roots to be stretched out—the holes should be dug some inches deeper than may be needed. In the bottom there should be placed a compost, consisting of mould from the woods, leaves, scrapings from the road, and decomposed manure. Each tree should be placed about the depth it originally grew in the nursery; a stake should be placed to each, which should be attached by bass matting or some other equally soft substance; the hole should be filled up with the above compost, which should be settled down with water around the roots, taking care to tread the earth firmly around each tree as planted, and to finish the filling around it in a dishlike form, so as to serve to catch the rain and thus keep up a proper degree of moisture. If convenient to be had, a few inches of gravel or small brick bats, placed at the bottom of each tree, to drain off superfluous water, will be found useful.

In the selection of the kinds of trees, be careful to select none but the best, and have them to ripen at different periods, so that the labor of gathering may not come all at the same time. Be careful in setting out your trees, and see that each one is properly planted. A work that is to last a life time is deserving of being well done. Do not neglect your young trees after they are planted. See that they are watered in times of drought, and that your young orchard is periodically cultivated for a few years, not in grass, but in some crop that requires culture, as corn or roots.

Subsoil Ploughing.—As we have great faith in the efficacy of subsoil ploughing, we could wish that each of our patrons would so prepare a few acres of each of their corn fields, and thus, by contrast with the product of an equal number of the adjoining acres—which should be similarly manured and cultivated—test the efficacy of this mode of preparing land. Our own opinion is, that the subsoiled acres would yield a third more than those which may be simply ploughed.

Having thus noticed the work on the farm, we will devote some little attention to those duties which more particularly belong to the *Lady patron* of the homestead—as however necessary to the well being of the whole establishment successful cropping may be, many of those things which enter into the luxuries of the country life—which increase the means for the elaboration of its more elegant hospitalities, have to be provided through the notable pains-taking and skill of the good house-wife. Therefore, with the view that we may contribute our mite in aid of that generous devotion which woman never fails to give to her duties, we have appropriated a few pages to the proper management of the Poultry yard, in addition to our hints for the Garden. And in thus volunteering our services—in thus trenching upon the province of the softer sex, we have to say, that we are influenced by feelings too hallowed by reverence to subject us to reproach as being a poacher upon the manor.

In concluding our monthly chat, we would be

indulging with the hope that success may attend the labors of the husbandman; bountiful crops result from his toils; ready markets and good prices be found for his products, and health to enjoy the fruits of his industry, so that happiness may abound in his household.

USE OF THE POTASH OF COMMERCE AS A MANURE—HOW TO APPLY IT—QUANTITY PER ACRE—WHAT IS THE MOST IMPROVED PLAN FOR A COW-HOUSE.

It will be perceived by the subjoined communication that a correspondent asks our opinion.

"Regarding the propriety of applying the *Potash* of commerce to our lands, and whether it is not best to use it in the form of a compost mixed with soil, &c.?"

With regard to the first branch of this inquiry, we have never entertained but one opinion, and long since advised our readers, who were too remote from the large cities to obtain a supply of *unleached* or *leached ashes*, to avail themselves of the *potash of commerce* as a substitute. In so doing, we did not presume that *potash* could perform all the offices of either *leached*, or *unleached ashes*, but that it would perform those all important ones, of dissolving portions of the silica in the soil, of combining with, and of forming the *silicate of potash*—a substance of the very first moment in the constitution of the outer crust of all the grain and grass bearing vegetables—and without which, no perfect system of vegetation can be sustained; because, without it, those families of plants would be deprived of the capacity, to a very great extent, of standing erect.

Nature has most wisely provided all virgin clays with greater or lesser portions of potash, and hence it is, that, without artificial aids, the grains and grasses sustain, in a measure, vegetable life better in such soils, than they do on those soils where sand greatly predominates. But for the potash which is yearly applied in the form of barn-yard and stable manures—all of which contain the elements of *Potash* in their composition—we apprehend that healthful vegetation could not be advantageously carried on. All crops, however, abstract from the soils upon which they may be grown, certain portions of the various substances which go to form the great whole of which they may be comprised—and amongst the rest, the abstraction of potash is annually going on,—and hence, to continue the fertility of such soils, an artificial supply of that mineral, as well as of the various other elements liable to abstraction, must be, periodically, furnished to them. If we did not abstract and carry away in our crops, annually, more than we return to the soil, the necessity for periodically manuring would not exist. But as we do take away more than we return, the deficiency, as before remarked, must be thus supplied.

Our correspondent also asks us:

"Whether it is not best to use it (*potash*) in the form of a compost mixed with soil, &c.?"

We answer this question affirmatively, as the *potash* of commerce, from its chemical nature, could not be sown, because, the moment it comes into contact with the atmospheric air, it absorbs moisture, deliquesces, and, if left long thus exposed, would become a liquid substance. Owing then to its chemical nature, it is evident, that *potash*, without admixture with some other bodies, could not be applied to the land—could not generally be distributed. How it may be applied?, therefore becomes a question of agricultural interest. From the very cause which renders it impracticable to sow it by hand, or by machinery, we apprehend it would be equally impracticable to incorporate it, of itself, without previous preparation, in a compost of which soil and like substances were the base. We believe, however, that by dissolving it in water, it might be very advantageously incorporated with the mass of which the compost heap might be formed, and we believe also, that in that form its action upon the silica would be more promptly effective; though from its greater tendency, when dissolved, to obey the laws of percolation, it might not be as lasting. We are not prepared to advance a positive opinion upon this head, as we think it involves one of those questions upon which much may be said upon both sides. Of this, however, we are very certain, that common sense, as well as the chemical affinities of potash, both indicate that it should be reduced to a solution before being submitted to the compost heap.

Our correspondent next remarks, that:

"It has been stated by a chemist that *one-half* bushel of finely ground bone-dust mixed with five pounds crude potash are more than equal to 50 bushels of leached ashes."

No one defers more readily than ourself to the opinions of chemists of well established reputation, but we confess we cannot subscribe to the one above referred to by our correspondent. We had met with it before in our reading, without yielding our belief in its truth. Bone dust and Potash are admirable manures, when administered in proper quantities, but we have no faith in prescriptions so infinitesimally quantitative. Now the experience of the agricultural world, wherever ashes have been used, attest this fact—that fifty bushels of leached ashes will manure an acre of ground, improve it, and cause such an increase in the product, as to set all question as to the utility of the application at rest. But although we are willing to admit that 5 lbs. of potash might for a single season be competent to manipulate the silica of the soil, to which it might be applied, into the silicate of potash, its action, from the very limitation of the supply, would be restricted in the period of its duration—so restricted that it could not reasonably be said to compare in relative value with *fifty* bushels of leached ashes. Leached ashes, as we proved in our January number, does not contain, to be sure,

any traces of potash; but if we take the leached ashes of the oak as our example, the following is the result:

Silica	-	-	-	-	-	3.8
Lime	-	-	-	-	-	54.8
Magnesia	-	-	-	-	-	0.6
Phosphoric acid	-	-	-	-	-	0.8
Carbonic acid	-	-	-	-	-	39.6
						99.6

According to this analysis, every 50 bushels of leached ashes contain upwards of 27 bushels of *Lime*—and although from this exhibit it is obvious that, by the process of lixiviation, the ashes are deprived of their *potash*, still as they afford more than 54 per cent. of their entire body of lime—a substance which possesses the chemical capacity of converting the organic remains or vegetable matters in the soil, into substances analogous to, if not identical with, potash—into substances possessing all its chemical attributes—it must be admitted that 27 bushels of lime,—the quantity in 50 bushels of ashes—must necessarily be more potential in the melioration of soil, than “half a bushel of bones and 5 lbs. of Potash.” Besides the lime, the leached ashes contain visible traces of *magnesia* and *phosphoric acid*, two important elements in the constitution of plants, and nearly 40 per cent. of carbonic acid, an ingredient whose life sustaining principle is universally admitted in the vegetable as well as animal kingdom.

Now, if we estimate that half a bushel of bones are equal to 25 lbs. in weight, we would have in that quantity about 14 lbs. of mineral substance, one half of which might be set down as phosphate of lime, the rest consisting of some 11 per cent. of the carbonate of lime, 1.16 per cent. of the phosphate of magnesia, and 1.20 per cent. of soda and the muriate of soda, and about 43 per cent. of cartilagenous matter, soluble in water. It would then, indeed, be singular, if so small a quantity of bone dust and potash could perform as much good in the way of improving the soil, as could a substance like that of ashes, possessing some elements in common, and in such vastly greater quantities—nay, in a two-hundred fold greater ratio than bone dust and potash.—In the new lights of medicine the *minor* has been made to usurp the province of performing the offices of the *major* agents, but we have yet to be convinced that potash and bone dust, in such minute doses, are competent to accomplish what the chemist in question has claimed for them.

We have felt it our duty to protest against the *insufficiency* of the prescribed quantities of these two fertilizers, and having done so, we will say that as fertilizers, in proper proportions that they are powerful manures, and, if it were practicable to do so, would deserve universal application. We, however, believe that, instead of 5 lbs. of potash and half a bushel of bones being sufficient for an acre, it will require 15 lbs. of Potash and 10 bushels of bone-dust.

In the preparation of the bones for the compost

heap, when it may be desirable to produce the most prompt action, the plan suggested by professor Liebig, would be decidedly the best. He says:

“But the form in which they are restored to a soil does not appear to be a matter of indifference. For the more finely the bones are reduced to powder, and the more intimately they are mixed with a soil, the more easily are they assimilated. The most practical mode of effecting their division is to pour over the bones, in a state of fine powder, half of their weight of *sulphuric acid*, diluted with three or four parts of water, and after they have been digested for some time, to add one hundred parts of water, and sprinkle this mixture over the field before the plough. In a few seconds, the free acids unite with the bases contained in the earth, and a neutral salt is formed in a very fine state of division.”

Liebig remarks:

“That the *manure* of an acre of land with 40 lbs. of bone dust is sufficient to supply three crops of wheat, clover, potatoes, turnips, &c. with phosphates.”

As great an advocate as the professor very properly is, for the use of mineral manures, as essential as he considers the presence of the phosphates to a fertile condition of the soil, it will be perceived that he here recommends bone-dust as an *auxiliary* to the usual *manure* applied on an acre of land. We note this, to show that, in the opinion of this great chemist, the phosphates are not everything, and that, when he speaks of them in small quantities, he only intends to convey the idea of their lasting but for a short period. This is his meaning, or his remarks are inexplicable, as he prescribes the quantity named in connection with *other manures*; and then only calculates that the phosphates and the other manures combined, are competent to give three crops—or, as we presume, to last throughout a single rotation.

But to return to the compost. After the bones, through the agency of the sulphuric acid, are digested, and subsequently diluted with 100 parts of water, the solution of the potash should be added to it, when after the whole is well stirred, it should be incorporated with the soil, by thorough mixing, as suggested by the query of our correspondent. Should soil not be convenient, it might be mixed with any quantity of stable, barn yard, or other vegetable or animal manure, which might be intended to be applied to an acre of land, and the whole carried out, spread and ploughed in. The *potash* would form with the cartilagenous matter of the bones, a saponaceous substance, which could not fail to operate effectively,—while the sulphuric acid, would combine with the lime and form the sulphate of lime, and thus serve to give fixidity to the nitrogenous matter, both in the soil and compost, and thus husband them for the future uses of the plants.

We are pleased that our correspondent has called attention to this subject. He very properly remarks that it is an “interesting” one. And we must express our regret, that we are unable to answer his inquiries with respect to “the most approved modern

plan for a corn-house;" but hope, that the information he seeks will be supplied by some of our numerous agricultural readers. From our knowledge of his zeal in the cause of agriculture—and from the kindly feelings which we know to animate his heart, we are certain that it would afford him pleasure at any time, to respond to any question that might be put to him—therefore, he who is ever ready to give, has a right to be met in the same spirit of generous reciprocity.

BALTIMORE, January 24th, 1848.

To the Editor of the American Farmer.

SIR:—From your very able remarks in reply to a communication on the subject of ashes in the last No., it would appear that after this substance has passed through the soap boiler's hands, there is little or no potash left in the mass, it having all been extracted by the process for making soap. Now will you be kind enough to give us your opinion regarding the propriety of applying the potash of commerce to our lands, and whether it is not best to use it in the form of a compost mixed with soil, &c. It has been stated by a chemist that one-half bushel of finely ground bone dust mixed with five pounds crude potash are more than equal to 50 bushels of leached ashes. This is an interesting subject to the cultivator, as you are well aware, that equally with lime and phosphate of lime, is the presence of potash necessary in a productive soil.

Yours, &c.

A SUBSCRIBER.

P. S.—What is the most approved modern plan for a corn house?—freedom from vermin and convenience for the easy unloading from wagon, and storing the grain away to be taken into consideration. The building, if admissible, to contain beneath an open place for the shelter of wagon, cart, &c.

OPERATION OF ASHES AS A MANURE.

To the Editor of the American Farmer.

DEAR SIR:—In the last—February—No. of your Journal, I read a paper on the use of "ashes," as a manure, under the signature of R. N. Milburn, which bespeaks so much intelligent observation, and laudable spirit of inquiry, well directed, that I am induced by the impulse of interest, as well for myself, as others, to offer what little aid, and co-operation, I may be enabled to contribute, to the prosecution of his inquiries, which the author has so ably presented, and on which he has promised to publish "his experience and observations, for thirty years back."

The inquiries involve, necessarily, two questions—*are ashes—practically—under any conditions—leached, or unleached, useful as a manure?*

And 2ndly, and theoretically, of what use are they or, how do they operate, to produce good effects on vegetation?

In regard to the practical effects of ashes as a manure, I may concisely remark, that all my neighbors, who have used them—as well as myself, can bear testimony to the most favorable results, from their use, as a manure—*leached—and unleached*, for many years, in all the varieties of soil, in our region of country—and we consider them the best—that is, in the "ensemble," regarding cost—energy—and permanency, the most profitable manure, we have ever applied.

Secondly, and theoretically—the known princi-

ples of vegetable physiology, in connexion with this inquiry, will, I think, confirm this practical opinion of the virtues of ashes—be they *leached—or unleached*; and upon this point, I propose to offer a few remarks.

Without designing to be minute—ashes, though they may vary in quantity, and quality, by the various plants, or trees, from which they are produced—yet, contain in all cases, indefinite proportions of "carbonates"—"sulphates"—and phosphates of "Potash"—"Soda," "Lime"—and "Magnesia"—with small portions of some other substances, held to be useful to vegetable growth; such as alumina—oxide of iron, &c.

A part of these components, in some of their combinations, as potash—and soda, in particular, are soluble, and subject to be washed out, as the means are more or less employed to accomplish it—but a large portion is insoluble,—and consequently, not liable to be removed by the usual process of lixiviation—such as the imperfectly burned carbonaceous matter,—and another large portion,—roughly estimated by the best analysts at about nine-tenths of their whole weight—of insoluble carbonates—silicates—and phosphates of potash—lime—magnesia—and alumina—all of which remain untouched, by the washing, ready to exert their full influence, as manures.

Their soluble, or carbonic alkalies—and their sulphates, and chlorides, may be, indeed, chiefly, or perhaps wholly removed by the washing—but, seldom, I think, is the process so complete, as to exhaust them entirely, or reduce them so low, as it is said, has been suggested by Professor Baer at one of his Lectures in St. Mary's,—as half a pound of potash in a bushel, and that they were, as he thought, of but little value, after leaching;—he must have alluded to the soluble salts—*as*, that portion of potash which is in combination with silica and phosphoric acids, cannot be removed by the washing;—and, grant, what is very improbable, that all the soluble potash should be washed out—yet, it will be conceded, I presume, and the best analysts have declared the fact, that the before named insoluble portion of the salts contained in ashes constitute an essential part of the subsistence—of wheat—oats—rye—barley—Indian corn, and other members of the Family of the Grasses, in particular; as well as of others, in general;—and consequently, they require them for food;—and the ashes containing them, though deprived of their soluble potash, must continue to be a valuable agent, in the fertilization of the soil.

Of the family of the "*Cerealia*," the demands are very unequal, as indicated by the ashes of the respective individuals, for mineral nutriment; by the analysis of Sprengel, the most reliable authority, perhaps, extant, the ashes of "oat" straw contain about fifteen per cent. of potash—2.6 of lime—0.2 of phosphoric acid;—those of wheat, by the same authority, only six-tenths of one per cent. of potash—six and eight tenths per cent. of lime—and four and eight-tenths per cent. of phosphoric acid;—these partial components, are named here, only, as examples—and, in evidence, too, of the small quantity of potash, contained in wheat, and consequently, required by this plant;—and to the same point, the "*American Quarterly Journal of Agriculture and Science*," vol. 1, page 54, eminently conducted at that period—1845—by Drs. Emmons and Prime, published the analysis of a thousand lbs. "wheat straw"—and the same quantity of that of "oats"—thus the wheat 0.20 of potash, 2.50 of lime—

and 1.70 of phosphoric acid, and 28.00 of silica—and of that of the "oats," 8.70 of potash—1.52 of lime—0.12 of phosphoric acid—and 45. of silica—others omitted as before.

I have adduced these analyses, partly to remove an erroneous opinion, entertained by others, as well as by the author of the excellent essay, which has elicited this communication—that the wheat plant requires the largest quantity of potash, of any of the Cerealia—and further, to lead to the fair inference, that even the small quantity of potash, which may remain in ashes, after ordinary leaching, may considerably subvert the small demands of the wheat plant, in particular, and indeed, of many others, in a similar category:—and, when it may happen that the ashes are more perfectly leached, as by the agency of 20 to 30 per cent. of lime, which is said to be the practice of soap boilers, then, this addition of lime, if not equivalent, will be a useful substitute for the abstracted potash.

The conclusion, then, seems inevitable,—a priori—that ashes *though leached*, are very highly worthy of the attention of the agriculturist; containing, as they, then, still do, many substances essential to the economy of vegetation—and when we know, too, that all clays contain potash, unless they have been deprived of it, by long continued, and exhausting cultivation, without occasional assistance:—and further, that, as we have before herein seen, potash enters very lightly, into the composition of some of the more valuable of our crops—as before stated—of wheat;—and that even in small quantities, potash is capable, by its chemical action, of decomposing, and rendering soluble, some of the most intractable, tho' essential of the mineral constituents of manure, and reducing them to a condition of suitable nutriment—it would seem to be unquestionably true, that ashes are a valuable manure—not only for the "potash" they may contain—but also, for many other of their constituents, which cannot be removed by Leaching; and which preserve a value in them, very little inferior to those, which have not undergone that process.

In connexion with this subject, I will add a few suggestions, for which, I am indebted to Dr. Lee, one of the most zealous and eminent chemico-agriculturists in our country—upon the use of ashes with quick lime, which are auxiliary, to some of the sentiments, which I have, before, expressed in this paper; lime renders alumina—the basis of clay—in leached ashes, or, in the soil, soluble in water; and thus liberates the potash, and silica (and the same of the soda) which, chemically uniting, form soluble silicates of potash, and soda; these enter the circulation of the plant, and are decomposed in the stems of the grasses, and Cerealia; the silica is there appropriated, to give firmness, and strength to the stem—while the potash is (chiefly) returned to the earth, to perform the same office, as before, that is—to render soluble, another portion of sand—to be also absorbed, and transformed into vegetable bone; now, from this view of their "*modus operandi*" it may be understood, how a few ashes,—or, a small portion of potash, may subvert the purposes of agriculture, for many years; and especially, in clay lands, where they are naturally present;—silicious soils will require a larger supply, as, in these, this article, is naturally deficient;—hence, it results, that, by a moderate application of ashes, or lime, as the demands may be indicated, by a chemical analysis of the soil, and of the ashes, the small supply requisite, of either, or both of these mineral elements of

vegetable subsistence may be furnished, at but little cost, in relation to their value—and a very permanent, and valuable manure be obtained. With the reservation, eternal, and unvarying—be the manure, of whatever kind it may—that occasional assistance, to that in question, and to all others, be afforded—by, at least, small portions of nitrogenous materials,—without which, the plant may flourish,—but, as an "*ignis fatuus*" it may present a brilliant—though illusive promise, of a reality, not to be found—the Grain, if any, will be imperfect, and unfit for animal nutrition.

You will excuse me unintentionally—long communication—from your knowledge of the constitutional impulse, which drives me, irresistibly, on agricultural subjects.

Respectfully,

JOSEPH E. MUSE.

Appleby, near Cambridge, Md., Feb. 14, 1848.

SOOT AS A MANURE.

To the Editor of the American Farmer.

At page 114, vol. 2, new series, the analysis show the great value of Soot; but I do not find any directions for its use, and mode of application:—I therefore request information:

1st, the best mode of application;—2d, how many bushels per acre, (the least necessary to ensure good, or decisive results—the greatest, requisite for the best);—3d, can it be advantageously used in compost?—if so, state the component parts, &c.—4th, for what description of soil, and crops is it best adapted—(will it greatly help a crop of wheat, turnips, or potatoes?)—5th, may it be used with guano, (mixed with it, or applied separately to the land? &c.)

An early answer, in your highly valuable paper, (in the March No. if practicable,) will much oblige, your friend, and subscriber,

R. J.

Fairfax co., Va, Feb. 13, 1848.

REPLY BY THE EDITOR OF THE AMERICAN FARMER.

1. Judging from the constituent elements of Soot we do not hesitate to say that the "*best*" way of applying it is to plough it into the earth. About fifty per cent. is comprised of *Grime, Extractive matter, and the Acetate of Ammonia*—all substances nutritive in their character and capable, by the operation of heat and moisture, and the action of the roots of plants, of being converted into volatile gases, and consequently subject to loss by evaporation. Soot, however, may have its volatile salts fixed, by admixture with charcoal or plaster, and when so mixed, may be sown as a top-dressing.

2. It is difficult to say how many number of bushels of soot would be the least quantity per acre to produce decisive results—so also is it so, as to the *greatest*. If 20 bushels of soot, 4 of salt and 1 of plaster were composted together, evenly spread over an acre of ground and ploughed in, we should rely upon the results being decisive. The same quantities of soot, salt, and plaster, if mixed with the usual quantity of barn-yard and stable manure applied to an acre, would greatly enhance the value of either, and tell handsomely in the increased yield. Fifty, or even a hundred bushels of soot, may be applied to an acre of ground with the certain prospect of corresponding benefits—but we would never apply it

either as a top-dressing, or to plough in, without giving fixidity to its ammoniacal salts, by mixing it with either plaster or charcoal. If Plaster be used, 1 or 2 bushels to the acre is enough—if charcoal, half the quantity of the soot to be applied.

3. As is indicated by the above, soot can be used advantageously in composts—for sandy land we would make a compost of 10 double-horse cart-loads of clay, 20 bushels of soot, 4 bushels of salt and 2 of plaster—for clays we would substitute the clay by sand, and observe the same quantities of the other substances.

4. It is adapted to all soils and all crops, as wheat, corn, rye, oats, potatoes, turnips, &c. When applied to corn, it should be used as an auxiliary to the barn-yard and other manures, that plant being a greedy feeder requires plenty of pabulum.

5. It may be used either with or without Guano—but whether used either the one way or the other, should invariably be mixed either with plaster or charcoal.

The suggestions of our correspondent will be attended to in our next.

For the American Farmer.

ODDS AND ENDS.

BY A PATUXENT PLANTER.

- "Now stir the fire, and close the shutters fast,
- "Let fall the curtains, wheel the sofa round,
- "And, while the bubbling and loud-hissing urn
- "Throws up a steamy column, and the cups
- "That cheer but not inebriate, wait on each,
- "So let us welcome peaceful ev'ning in.
- "Not such his ev'ning, who with shining face
- "Sweats in the crowded theatre, and squeez'd
- "And bor'd with elbow-points thro' both his sides,
- "Outscolds the ranting actor on the stage:
- "Nor his, who patient stands till his feet throb,
- "And his head thumps, to feed upon the breaths
- "Of patriots, bursting with heroic rage,
- "Or placemen, all tranquility and smiles.
- "This American Farmer—happy work!
- "Which not e'en critics criticise; that holds
- "Inquisitive attention, while I read,
- "Fast bound in chains of silence, which the fair,
- "Though eloquent themselves, yet fear to break;
- "What is it, but a map of farming life,
- "Its fluctuations, and its vast concerns?"

With one or two interpolations, I have expressed in the smooth lines of an amiable old Poet, my own crude sentiments and feelings as I commenced reading the January number of the Farmer. Dr. Muse takes the true and only sure ground for all our farmers to improve their lands—let his suggestions be followed, as they can be by every man who owns a farm, and the beneficial results would be so clearly manifested that every industrious farmer would soon have all his land in high condition. Like him I am "unfashionable" enough to have always contended that those *patent* manures are well enough to be used by all who are in circumstances, and locations, to use them without the *whistle* costing too dearly. But I have elsewhere expressed the fear that those "*nostrius*," as the Dr. calls them, will tend to do much harm, while I admit in some cases they effect wonders in enriching those who use them—many a man will ruin himself by injudicious expenditures of his

small means, in the hope that it will do for him what he hears it has done for others,—while he will neglect the slower, but safer and surer mode of improving his land. How many thousands dazzled by the sudden lucky elevation of a few from poverty to luxury, by drawing a prize in the Lottery, or winning at the gambling table (which is no greater sin than the other, except that one is licensed gambling and the other is discountenanced by law,) have abandoned all industrial pursuits and spent their fortunes in piecemeals, ever losing, but ever hoping by one lucky hit to be rich for life. It cannot be too forcibly impressed upon all our farmers, that use what amount they please of the bought manures—surcharge as often as they please their farms with *electricity*—pour on Guano till the country for miles around be perfumed with the odors of Ichaboe—but *neglect not* to make large quantities of manures, from what is found on the farm itself. Let them bear in mind that those who have succeeded best by the use of these foreign fertilizers—Col. Capron for instance—have never neglected the domestic manure heap—He is *now* covering his clover fields with manure, so thick that the clover and the ground is concealed from view. Now every farmer has the ability to make large piles of compost, if he will only set to work, and on his farm collect together all the vegetable and animal, and "every organic putrescible substance," that would otherwise be sore-eyes, or perhaps really be unseemly and unhealthy, if left slowly to rot and emit noxious effluvia. The Doctor's ideas are also very correct in regard to the benefits that must result from sub-soiling stuff, clay land intended for corn. The sub-soil plough is an implement of great value to farmers, but one which is rarely used, and but few own one, or if they do, do not use it properly—every farmer should own one, for every field has some spots requiring its use, if the whole field would not be the better thereby.

The correspondence between "A Young Farmer" and Major Jones is very pleasant and instructive—the Major gives very powerful facts, going far to establish the position which English writers maintain, that drill husbandry is always best, "that more is made per acre, and a great saving of seed is gained—I should think that unless the clover, where it is heavy, was deeply turned under, and the land well harrowed it would be injurious to the wheat crop, but managed as the Major recommends it, no doubt is favorable to an increased product. "On no occasion ought stock be permitted to go on clover from the time it is sown until it is in blossom," is an axiom that should be nailed to the gates of every field newly sown in clover, that neither master nor man may say they forgot it, when they turned on the young clover after harvest, four hogs to the acre, as I have seen done in my country;—cloverseed \$8 per bushel at that—The excuse was, that the hogs might pick up the loose grain, and the shattered grain.—But, that is like one of my neighbors, who contends that the cheapest mode to fatten a horse is to turn him in your corn-field, when corn is worth \$4 per barrel.—What a glorious world we live in!

Major Jones states one fact as surprising to me as important, if experience hereafter shows it to be a correct system for our lands; it is that the Hon. E. F. Chambers, an excellent farmer, thinks July the surest season for sowing wheat. If so, how important!—what labor and trouble is saved in sowing wheat when the corn is worked for the last time—many then sow rye, but if it will answer to sow wheat then, an incalculable saving will be effected—

I hope the Major, or the Judge, will let us hear more fully of this practice. Does he plow the wheat in at that season? Is it corn land or fallow he sows in July? How is it sown? What the after management? Does he feed it down with sheep in autumn or winter? Full answers to these interrogatories would be of much value to the farming community especially in the tobacco region of Maryland.

Weight of Cattle.—Every man who has but one beef for sale, will feel pleased at your article on the subject of the *weight of Cattle*. We have too long suffered imposition from butchers—they should be governed by the Boston rule. The "fifth quarter" as they term it, should be paid for. It is the most valuable portion of a fat beef. They say they are content to clear that on each beef. If so, why not allow the grazier full price for the rest of the beef, and retain for their labor, expense and profit the 5th quarter. This they do not do; and again the *half* is too great a difference between the *live* and *net* weight of any beef. If a beef be very fat the difference will not exceed *one-third*. Some time since I had a heifer for sale—no one offered more than \$18.00 for her. She was not weighed alive; but one butcher offered to bet she would not reach 800 lbs. and putting her down at 750 lbs. at 2½ cents per lb. he offered \$18.25-100 cts. for her. I determined to slaughter and sell in the neighborhood—I sold at 6 cents for hind quarters and 5 cents for the fore-quarters. This was the result:

1 hind quarter 108 lbs. at 6 cents,	\$6.48
1 do 105 lbs. do	6.30
1 fore quarter 118 lbs. at 5 cents,	5.90
1 do 117 lbs. do	5.85
	—
	24 53
47 lbs. green hide at 5 cents,	2.35
24 lbs. of tallow at 10 cents,	2.40

Whole amount, \$29 28

This simple statement is an argument at once in support of your views, but *how* can we alter the present rule? Let agricultural clubs and associations take up the question, and discuss, and come to some determined rule of action in regard to the matter. If necessary let us have legislative action.—This is a legitimate subject for the "Committee on Agriculture" to report upon. By the way, I hope you will publish the reports of that committee, for they will be of an interesting character I doubt not, inasmuch as I find the speaker very properly placed upon it some distinguished agricultural writers and speakers. I do hope that they are alive to the importance of their duties. I view it as a committee second in importance only to that of the "*Ways and Means*."

WASTE OF WOOD AND TIMBER.

To the Editor of the American Farmer.

DEAR SIR:—The apparent bad management, and short-sightedness of many land holders, induces me to pen the following remarks. It cannot have escaped the most casual observer with what wanton extravagance, and destructive vengeance, the axe is laid to the tree in many parts of the old settlements of Maryland.

This improvident and unwise course is being felt, and that keenly, by many already. As owners of the soil, "God's heritage," and as good and faithful stewards, we are bound not to abuse and destroy, but to save and improve for coming generations.

There are two causes existing in most of our State, producing this dire evil, the one is the culture of tobacco—the other the black population, slave and free. Thousands upon thousands of acres of our best wood land have been swept away that a bright article of tobacco might be made for a year or two only—and the dancing songsters of Africa's burning clime, who can wrap themselves in a blanket in summer's hottest night, and snooze by a rousing fire, (like that upon ancient altars, which never ceased from burning,) is the other evil—whether their bed be a sack of straw or a bare board, the appendage, the fire, makes it dearer than the white man's down and feathers. What is the remedy? Refrain from the exterminating war with the axe—economise in wood and timber—protect the young growth—plant and re-plant annually all in your power. As to tobacco, if you cannot, by any other means abandon a practice of cutting and slaying that is fraught with so much labor, and in the sequel so rapidly deteriorating your soil, the same amount of time and labor expended in manuring and farming will compare well with the opposite course; to be frugal with wood I would suggest the remodelling the old time fire jams of your quarters, 4 by 8 to 12 feet, the width of the house, holding a cart load of wood, for those of more modern use, one foot by three,—make tight their houses whether for servants or tenants, when much labor will be saved; health and comfort enjoyed, and a vast amount of property preserved.

It may be this is too small a matter to have occupied your attention, if so, I now urge it upon your consideration as a subject well worthy your meditation—your wilful neglect, reckless avarice, may and will bring upon the coming generation, your children, toil, hardship, and perhaps ruin. I ask and give you your own time to answer, what is a farm without wood and timber?

D. G. WEEMS.

Tracy's Landing, Md.

APRICOT TREES—DRAINING—APPLICATION OF CLAY TO SANDY LAND—TREATMENT OF LAND IN SORREL—VALUE OF CORN STALKS.

SPRINGFIELD, February 8, 1848.

To the Editor of the American Farmer:

I am in want of information upon several matters, and thinking I could probably obtain it through "The Farmer," I write in hopes of being gratified. I have several choice Apricot trees which I budded on peach stocks four years ago; they have grown luxuriantly and every spring bloom with the most flattering prospect of fruit—but there it ends. The fruit will form and grow to a small size and then gradually fall. Here is the rub, sir—a disease appears at first in the extremity of the twigs of the previous year's growth; the foliage begins to wither; the twigs will die and very soon the gum will exude from the limbs generally, even the more indurated parts. The general health of the trees has not been affected.

Again, I have a branch at the head of the Cambridge Creek; at the lower end of it I have made a broad dam, wide enough to drive my carts over: If I could keep out the salt-tide water, and at the same time fix a flood gate to let off the surplus spring and rain water, I could make this branch a very neat miniature meadow. The springs are numerous along the margin of the branch, and in fact, this was the origin of the name of my place. I undertook to make a flood gate, but it did not answer. I should

be much obliged for a word of advice. If I can get a proper flood gate that will enable the surplus fresh water to pass itself off at low tide, I can make small ditches along the margin to receive the spring water, cover them up as underdrains, and with an open ditch in the centre to carry off the rain water, of which there is a very abundant flood sometimes, I am sure I should be repaid for trouble and expense. Shall I be right in the *modus operandi*?

While I am writing to you I will make a few suggestions. I was gratified to see in the last No. of the "Farmer" your remark about the application of clay to sandy land. Just before that No. reached me, I had been hauling an old ditch bank, composed principally of clay, on an acre of sandy land; but I greatly exceeded your number of cart loads. In truth, sir, I hauled 140 one horse cart loads on this acre. It is true there was some vegetable mould amongst the clay, from the fact, that the ditch ran through a woods.—Now I propose to put 100 bushels of shell lime on the acre to neutralize the acid of the vegetable matter—am I right?

I have another piece of light, very thin land, so poor that I did not think it would bear a crop. Two years ago I sowed corn at the rate of two bushels per acre on it. The corn did make out to get up to three feet in height, when it began to tassel and turn yellow. I had a heavy roller put on the corn, and as it was pressed down a plow followed and turned it under. The ground is now uniformly set in sorrel, blushing red—so I have secured that much vegetation. I suppose the corn underwent the vinous, and, subsequently, the acetous fermentation, and set the teeth of the sand on edge. Well, Mr. Editor, I resolved to work farther: Last summer I put up a summer cow pen on the ground, hauled in to it a thick layer of salt marsh, penned my cattle on it at night, then a layer of woods mould, and so alternately until I had made a large heap. My cattle were kept there about four months. I mean penned at night. Two weeks ago I set my hands at work to turn it all bottom upwards. This was done by beginning on one side, throwing the compost in extended layers, and upon every layer of six inches thick I had shell lime spread abundantly until I used 150 bushels of lime. I think from rough calculation, having measured the area it occupies and the depth of the compost, I have 400 loads. This I shall put on the sorrel, at the rate of one hundred loads to the acre—besides, I have reserved a bank of shells to be burnt hereafter; and when the manure is spread and plowed under, I shall put the shell lime on at the rate of 75 bushels to the acre. Will this course give a quietus to the sorrel?

I have been repeatedly asked by farmers whether corn stalks—I mean those naked vegetable poles which are left in our corn fields, topped, stripped, &c. until winter—will be sufficiently decomposed, if hauled into our barn yards, to be carried out in the spring for the corn crop? My answer is, they will not be decomposed, but what is better, they will be crushed to pieces by the hoofs of the cattle, trodden into the manure, act as absorbents of the liquid manure, and, upon being plowed under in the field, will there be decomposed, and that too by the time we give our corn its first plowing, I mean the plowing we call bar plowing, or throwing the furrow from the corn in its young state. This rapid disposition of a material which might, otherwise, greatly impede the cultivation of the corn crop, is evidently brought about by the presence of so much liquid manure with which it is saturated. I have hauled the whole

that grew on my farm last year into my barn yard, having had 18 acres in corn, from which I raised 121 barrels of merchantable corn in the ear. I was not satisfied that I had enough stalks in my yard; I therefore applied to a neighbor who had grown corn on a six acre lot—I told him it was melancholy to hear the cold winter's wind playing on their nakedness—he told me I was welcome to them, as he should warm them up in the spring by burning them. Now I have them where they will imbibe the elements of heat, and instead of giving his land a bare filament of ashy grey, they were helps to cover mine with a coat of polished green. Though I am not a militia captain, Mr. Editor, yet I go in for those kinds of militia musters, where the agricultural soldiers shall carry corn stalk guns, if they will ground their arms at the proper time and in the proper place.

BRICE J. GOLDSBOROUGH.

Failure of the Apricot to bear.—From the description which Mr. G. gives of the appearance of his apricot trees, we think the cause of their failure to bear arises from the ravages of insects—and we suspect that they are now in the soil in a chrysalis state underneath his trees. If we are right in this conjecture, we think he might remedy the evil and arrest, to a great degree, their future depredations, by digging around his trees some six or eight feet from their several trunks to the depth of 6 inches, and subjecting the earth thus dug up to the operation of fire. That done, spread a peck of freshly slacked lime on the exposed surface of the ground laid bare around each tree, then shovel in the soil which had been subjected to fire, and cover that with, say 2 quarts of salt, which must be evenly sown over the surface. Having done this, he should make a mixture of 2 parts soft soap, 1 of salt, and 1 of flour of sulphur; incorporate the whole together, and paint the bodies of the trees with it from the earth upwards, taking care, also, to paint the limbs and branches pretty well up. Let this be repeated as often as the mixture dries, until after the fruit shall have formed.

If he were to pave around his trees with halfburnt oyster shells, after he has done as we advise, we think it would operate as an additional security in the future.

Draining of the Branch.—By cutting off the springs on the margin of his branch and constructing such a flood gate as will pass the water from within, and be shut by the pressure of the tide from without, Mr. G., we should think, will attain his object. How his flood gate should be made, we cannot undertake to say—we hope, however, that some of our tide-water readers will oblige us so much as to give us a paper upon the subject.

Application of Clay to Sand.—In answering the question of our correspondent in our February number—*What is the best manure for sandy land?*—we did not fix upon any definite number of loads of clay, because we were desirous that he should be led on by the good effects of the first application to repeat the dose until, in his judgment, he had converted his sand into a mould, because we knew if he commenced

the good work, its beneficial effects would be so obvious as to encourage him to proceed onwards. We prescribed that 10 double horse cart loads of clay should be substituted for an equal number of loads of manure, at the same time intimating that it would require "*many repetitions of the dose of clay*" to produce the effect we desired to bring about. Mr. G. need not fear that he has put too much clay on his *acre*—he will produce *at once* the improvement which it was our purpose to bring about gradually, for the reasons assigned in our reply to our other correspondent. We think, however, that *one-half* the quantity of lime he names will answer as well as the whole, unless the clay he has put on is well charged with vegetable matter.

Treatment of the Land in Sorrel.—Unless the salt marsh be *clay*, and the object of Mr. G. be to convert his *sand* into *mould*, we apprehend that an application of 100 loads to the acre would be too much—there is such a thing as having too much of a good thing. The 400 loads of compost, rich as we presume it to be, would answer for 10 as well, if not better, than for 4 acres, and especially so, as he intends giving it an additional dose of 75 bushels of shell lime per acre. We think that 50 bushels will be sufficient to give a *quietus* to the sorrel.

Value of Corn Stalks.—Mr. G. has placed a most happy appreciation upon the value of corn stalks—they are not only excellent absorbents, but contain, in very large proportions, the *silicate of potash*, already formed, and ready, on decomposition, to be given out to the roots of the plants of the succeeding crops.

ED. AMERICAN FARMER.

Hussey's Reaper.—We addressed a note some months since to Mr. Collins and Mr. Warren, of N. Carolina, who, we understood, had been using Mr. Hussey's Reaper during the last harvest, asking their opinions respecting its merits, in comparison with other machines used in their vicinity—We have received Mr. Warren's answer, which we deem it due to Mr. Hussey, as well as to the Agricultural public, to lay before our readers. Mr. Collins' reply was published some months since.

EDENTON, N. C., Jan. 25, 1848.

To the Editor of the American Farmer.

DEAR SIR:—Some months ago, I received a letter from you, making enquiries of me, relative to Hussey's Wheat Reaping Machine. When your letter reached me, I was on the eve of leaving home for the summer, and since my return home, my engagements have been of such a character as to cause me until the present to neglect replying to it.

I have used one of Hussey's machines one season, and though under circumstances not very favorable for the machine, I take pleasure in stating that its operation was satisfactory. During my harvest, which was about three weeks duration, this machine was kept constantly at work with the exception of a day and a half, yet I did not ascertain how many acres it would reap. Mr. Collins, of Lake Scupernong, also used one last season, and from him I learned that he cut upwards of 20 acres a day.

There is certainly much less wheat left in the field by one of these machines, than is by the ordinary method of reaping by the scythe or reap hook; it cuts close, lays the straw smoothly, thus rendering the tying of it in sheaves much easier.

I have witnessed McCormick's, which I consider a poor affair, and meriting no consideration except a dissent from me. Many of this last kind of reaper found their way here a few years ago; they now, or rather their remains, may be seen lying in the field whence they will never be removed.

TH. D. WARREN.

GREAT YIELD FROM A CECIL COUNTY FARM.

We have been shown a letter from a gentleman in Cecil county, to a gentleman in York Castle Hundred, says the *Argus*, which gives an account of an extraordinary yield of corn on the farm of Mr. Barr, who lives near Frenchtown, Cecil county. The corn is called the "*No Cob Corn*," or "*Trippe Corn*," it having hardly any eob at all. He raised off a field of several acres, one hundred and seventy-two three-peck baskets of corn to the acre, which when measured made *one hundred and twenty-nine bushels of shelled corn*. We are informed that it is supposed that from *one hundred and twenty to one hundred and thirty bushels* of this corn can be raised in a large field. The gentleman in the letter states that "he really and candidly came to the conclusion that no one would believe him, but the fact can be sustained by numbers in the neighborhood. There has been an universal demand for the seed."

We noticed in a former No. of the *Farmer* the extraordinary yield of Capt Barr's field of corn, and requested him to forward us a few ears, and also an account of his mode of culture, &c., to which we have received the following reply:

CLEAR SPRING, Maryland and Del. Line, }
February 14, 1848. }

To the Editor of the American Farmer.

SIR:—I fully intended to have sent you a sample of the Trippe Corn before this. If I do not send it this month, I will do so as soon as the boats commence.

You wished to know my manner of cultivating corn: I bestow a vast amount of labor, and have always been well paid for it. If possible, I lime my corn ground one year or six months in advance of planting; and, if I can, haul out fresh from my stables as much manure as will cover my corn land. It is immediately spread on the land, in all its strength, (from wagon or cart) during the months of November, December, January, February and March, if possible. Great results will be produced by land, if covered with manure during the winter months, as the lye from the manure is gently received into the land by every shower of rain falling on it. Most farmers will conclude that it is a waste—I contend that it is better to place it on the soil than to waste it in ditches and highways. Wherever land is treated as stated above, I will warrant it to produce green grass at the end of six years. From clover or timothy sod it will become set in green grass. My depth of ploughing corn depends on depth of soil, from 6 to 9 inches. Nine inches will require no subsoil plow to be used; and previous to planting my corn I have the ground in the best possible condition, in as fine tilth as we can place it in by 10-teeth cultivator and

spike barrow. My heavy crop of corn last year was plowed 6 inches deep, struck out 4½ feet north and south, and planted as to average, as near as we could get it, 9 inches apart, single stalk. It was twice plowed with the Chenoweth plow, No. 8—4 times cultivated, double bouts each time—once hoed with hand hoes and fine mould around the stalks with level hills. 56 acres of land in corn last season were plowed and worked with two young horses, fed three times per day. It was exempt from grass or weeds—it would be rare to find them on any portion of it.

The Tripple Corn should be called the Twin Corn, as it produces from 2 to 7 shoots, and I have had as high as seven short ears to a stalk. I am now selling it for seed in Delaware and Pennsylvania at one dollar per bushel, and could send you 30 or 40 bushels for sale, if you could find sale for it. I ask one dollar per bushel, as the double bushel of ears will produce 1 bushel and 1 peck shelled corn.

Very respectfully,
WM. S. BARR.

Elkton, Cecil Co., Md.

CULTIVATION OF A POOR AND DISTANT FIELD WITH REGARD TO PROFIT.

CULTURE OF THE YELLOW LOCUST.

"Mr. Editor:—I have a poor field of sandy land, remote from my farm buildings, which scarcely repays me for the cost of cultivation, and which indeed, is so distant as to make the cost of hauling quite an object even if it were fertile. What shall I do with it to make it pay? It contains about 15 acres."

Reply.—We would advise our correspondent to plant it in *yellow locust*, 10 feet apart. This will give him 435 trees to the acre or 6,534 trees on the 15 acres. If the enclosure to this field should be kept up, and the cattle kept out, for a few years, until the trees get sufficiently high not to be injured by them, in 12 years he may cut the locusts for fencing, the which he will, doubtless, want in that time,—or if he permits them to grow for 15 years, each tree which may survive, will be worth, for ship-timber, at least \$2. We have seen estimates which place the value of a locust tree for ship-building purposes, at 12 years old, from \$3 to \$5; we, however, have increased the period of growth, and set down a less sum as the probable value, because we desire to hold out no hopes that cannot be realized. In raising the locust, with the view of realizing the earliest profit, the land should be manured before ploughing it, and, it would, of course, be better to top-dress with a moderate quantity of manure, say, every four years. But the latter may be dispensed with by putting on 25 bushels of lime to the acre at the time of planting the trees. The lime would encourage the growth of grasses—and, therefore, so soon as the trees were sufficiently large to be beyond the reach of injury from the cattle, as the locust tree is known to be congenial to the growth of grass—the field might be used as a permanent pasture, and thus be made to yield more profit than if in regular culture.

How to ensure the germination of Locust seed.—Before sowing the seed, they should be soaked in hot water for 24 hours—reject all that do not swell up,

and sow the rest in a well manured and pulverized bed, in drills, 2 feet apart, the seed to be dropt 4 inches apart. The plants to be kept clean, and transplanted when 2 years old. There would be a little labor in this plan, but it would be profitably bestowed.

SUGGESTION TO MR. GOWEN

TO SUBSTITUTE THE *MACROPHYLLA ALBA* FOR THE CHEROKEE ROSE AS A HEDGE PLANT—THE POTATO CULTURE—COMPLIMENT TO THE MONTGOMERY AG. SOCIETY.

EASTON, February 10th, 1848.

Dear Sir:—I beg leave to suggest to Mr. Gowen, through you, to substitute the *Macrophylla Alba* for the Cherokee Rose; it is very similar in growth, easily propagated by layers, quick growth and hardy, foliage not so deep a green or polished as the Cherokee, alike in form, an ever-blooming rose, white and double. I intend, if I live, to attempt a hedge of it where I planted a box of Cherokee cuttings, sent me twenty-five or six years ago, by Mr. Rowan, of South Carolina, which flourished beautifully for several seasons: the winters proving wild, fearing they would not survive a hard winter, I had taken the precaution to plant them to the south of a cedar hedge at the bottom of my garden, intending to substitute the rose or train it over the cedar; it was almost entirely killed by the first severe winter, now and then putting up feeble suckers from the old root.

Mr. Owens' experience in the potatoe cultivation, as stated in the late No. of the American Farmer, agrees precisely with my own. Several of my friends in this county who planted after the old mode in stiff land suffered from the rot.

The Montgomery County Agricultural Society deserve much credit for their instructive reports. I hope to see their judicious example followed by all other Societies for the Promotion of Agriculture. The good old admonition should never be forgotten—"Let your light so shine," &c.

WM. H. TILGHMAN.

ON THE BLIGHTS OF THE PEAR TREE.

BY T. W. HARRIS, CAMBRIDGE, MASS.

It seems to have been taken for granted, by many persons, that the pear tree is subject only to one kind of blight. Hence have arisen the conflicting theories and speculations that have been published on this subject. Having no theory to maintain, and no speculations to offer, but such as are founded on facts, I propose to show that *insect-blight* is a disease distinct from *fire-blight* and *frozen sap-blight*.

By the term *insect-blight*, as here used, must be understood the sudden withering of the leaves, and the death of the limbs of the pear tree in summer, occasioned by the internal attacks of one or more of the insects, called *Scolytus Pyri* by Professor PACK. This kind of blight is common in New England; but it does not appear to exist, or to have been observed, in the western States, where, however, blights of the pear tree, somewhat similar in progress, and equally fatal in termination, prevail more or less every year. Blights, which are not the result of insect attacks, inasmuch as insects have never been detected in the blighted limbs, occasionally affect pear trees in New England. Some of my own trees have been thereby destroyed; and the most careful examination has failed to disclose any trace of insect depredation in them. On the other hand, numerous

opportunities for seeing the effects of insect blight, and of dissecting specimens of *Scolytus Pyri* from the blighted limbs, enable me to declare confidently that the diseases are specifically distinct from each other; as much so as small-pox and measles. It is not my purpose to discuss the question, whether fire-blight and frozen sap-blight, or winter blight, be identical; the contrast between them and insect blight being what is now to be attempted.

The effects of insect-blight begin to appear in June, and continue through July; but the foundation of the disease may be traced to the operations of the parent insect during the previous summer. If all the limbs that were killed by insect-blight in the summer of 1847, could have been examined during the latter part of the summer of 1846, there would have been found insects in them, in the larva or grub state, eating their way from the buds, where the eggs were deposited, inwards, through the bark and sap wood. These insects continued the work of destruction till the following spring, when they were transformed to beetles, and finally came forth from their burrows. The insects, therefore, preceded the appearance of the disease nearly a twelvemonth; from which follows the inevitable conclusion, that the blight of the limbs was the natural consequence of their previous attacks.

To suppose that the female *Scolytus Pyri*, by anticipation, deposits her eggs only on those limbs which are to become affected by fire-blight, or by frozen sap-blight, is unwarrantable; because none of these insects have been found in limbs that have perished by these kinds of blight, and consequently none could have existed in them during the previous summer. Hence, it follows that these blights are not caused by the attacks of *Scolytus Pyri*.

Observation sufficiently proves that this insect attacks young and thrifty trees, exhibiting no visible signs of disease or decay. As the young *Scolytus* is found in limbs that were apparently in a thrifty state during the previous summer, the parent insect, tho' not indued with the power to foresee frozen sap-blight during the following winter, or fire-blight the next summer, must have had some instinctive perception of the nature and actual condition of the tree on which she deposited her eggs; and in performing this act, she would not have been left to blind chance. As the *Scolytus* lays her eggs on sound and thrifty limbs, it follows that she does so from choice; and, hence, it is fair to conclude that she would not voluntarily lay her eggs on unhealthy or diseased limbs, so long as she could find those that were healthy.—Therefore, the opinion is untenable that the insects, found within the diseased limbs of the pear tree, are not the cause of the disease, but that they are attracted thither by the previous existence of the disease.

It should be remembered that the *Scolytus Pyri* requires a year, or thereabouts, to complete its transformations. In those limbs that perished by insect blight in the summer of 1847, the seeds of the fatal disease were sown by the parent *Scolytus*, in the summer of 1846. Those limbs that perished by fire-blight during the last summer, according to the theory of Mr. Cox and Mr. ERNST, must have been sun-struck during the same summer. Those limbs that perished by frozen sap-blight, according to the theory of Mr. BECHER, had their death blow dealt to them during the previous winter. If the theories advanced by the above named gentlemen be correct, as to the time of attack, the specific difference in these three cases of disease is obvious. The occurrence of the insects in limbs destroyed by fire-blight, or

frozen sap-blight, would be an exception to the natural order of things. But even on the unproven and unnatural supposition that insect-blight might, for a time, coexist with other blights, it is evident that the attack of the insects must have preceded the disease. Insect blight, therefore, differs essentially and specifically from fire-blight and frozen sap-blight, in origin and duration.

"What can we reason but from what we know."

Had the history of the *Scolytus Pyri* been well known and duly considered, the blight produced by the attacks of the insect would never have been mistaken for fire-blight, or frozen sap-blight. The mistake has arisen from taking too much for granted, and from not considering the possibility or probability that diseases, having some symptoms in common, and alike ending fatally, might be really and essentially distinct from each other.

It may not be generally known that apple, apricot and plum trees are attacked by the *Scolytus Pyri*, though less frequently than pear trees. In the latter part of May, 1843, a piece of the limb of an apple tree, affected by the *Scolytus*, was brought to me for examination. It was twenty-eight inches in length, and three quarters of an inch in diameter at the lower end. Its surface bore the marks of twenty buds—thirteen of which were perforated by the insects; and, from the burrows within, I took twelve of the blight-beetles in a living state; the thirteenth having previously been cut out. In July, 1844, I took one of these on a plum tree; and, in August following, I found a large number of them in some pieces of a blighted branch of the apricot.

To check the increase of this kind of insect-blight, it is not enough to cut off the infected limbs. The insects contained in these limbs must be destroyed; for, if they are suffered to make their escape, they will certainly continue to propagate the disease.—To make sure of the destruction of the insects, every limb affected by them should be cut off and immediately burned, as soon as the existence of the disease is discovered.

I am, dear sir, yours very truly,

THADDEUS WM. HARRIS.

Cambridge, Mass. Jan. 7, 1848.

[Horticulturist.

[There is no vegetable malady in which the cultivator of fruit trees, in America, is so much interested at present as the pear tree blight. To wage successful war against it, nothing is so important as to have a clear and distinct idea of the different forms of the disease, and their origin.

The foregoing remarks, from Dr. Harris, whose able work on our "Insects Injurious to Vegetation," has established his reputation, not merely as a scientific entomologist, but one who labors to render science directly applicable to the daily requisitions of the cultivator of the soil, are most acceptable at the present moment.—Ed. Hort.]

[From Downing's Horticulturist.]

CULTURE OF PARLOR PLANTS—CAMELIAS AND AZALEAS.

BY J. B. W., NEW-YORK.

As I see by occasional queries, in your journal, that there are some—perhaps many—of your fair readers desirous of gaining information on the care and culture of those green-house plants, kept in parlors, I will venture to offer, now and then, through

your columns, the result of some experience in this kind of culture for fifteen years past.

The two finest genera of plants, usually cultivated in dwelling-rooms, are, unquestionably, the *CAMELLIA* and the *AZALEA*. Both of these plants are remarkable for the great beauty of their flowers; and taken together, they furnish a bloom for the parlor from December to May. The *Camellias* are in their perfection in the first part of the winter—the Chinese *Azaleas* in the last part. The first are not more remarkable for the size, symmetry and richness of their flowers, than are the last for the delicacy, elegance and profusion of their blossoms. Take these two plants, in all their variety, and they would alone fill a very large conservatory. A few select varieties of each are, of course, all that room can be found for in the parlor; but when their merits are all told, they certainly deserve a preference over all other plants for this purpose. I shall, therefore, devote a few words to-day to the care and culture of these plants, only.

I should say, in the beginning, that the greatest evils the *Camellia* has to contend with in parlor culture, are—first, in the changes from heat to cold; and second, in a dry and dusty atmosphere. The *Camellia* will bear a great deal of cold without injury; but it very quickly suffers if there is a rapid change in the temperature of a room. It ought, therefore, to have a position as much guarded as possible against these changes; and in a cold climate, perhaps this is more effectually attained by a double window, hung casement-like, so that the inner one may be opened in the day time and closed at night; or kept closed altogether in extremely cold weather. (Double glazing has the effect of decomposing the light, and is therefore not so good in strong day-light or sunshine.)

When the blooming season approaches, a room where *Camellias* are kept should, in its temperature, be as nearly uniform as possible. It ought not to sink below 50° of Fahrenheit's thermometer. The plants should be regularly watered every day; but no more water should be given than the roots are able to take up; and this may be easily ascertained by looking to see the top soil. If this is positively wet, you may feel quite certain that not a drop more water ought to be given while it remains so. You will, therefore, omit watering for one or two days, as the case may be. When the plant gets fairly in a blooming condition—that is, when several flowers are beginning to expand, you may water *once a week* with guano water; made by infusing a pound of guano in ten gallons of water. This will give additional size and strength to the blossoms. After the flowers drop, and just as the plant begins growing, you may use this guano water *three times a week*. Everything for the next year depends on the growth of the *Camellia* at this time; for its whole growth for the next twelve months is completed in about three weeks; and whether you are to have a fine setting of bloom-buds for the next winter, and fine shoots and foliage, depends altogether on the advantages of light and food which your plants have during these critical three weeks named. The advantage of guano water in making fine foliage and fine bloom-buds, is now abundantly proved by experiment; there being but few of our best practical growers of the *Camellia* who do not use it at that season.

The *breathing pores* in the leaf of the *Camellia* are rather small, and therefore easily choked up with the dust from a grate. Hence, it is well to wash off the leaves with a syringe once in eight or ten days. I have, for a couple of years, followed this mode with

the best results. I wrap the pot round about with a bit of coarse cloth, to prevent the soil from being displaced, and from getting over-wetted. I then set the plant down sideways in a bathtub, and give it a gentle *shower-bath* of luke warm water. Syringing with a common hand syringe is equally good, but not so rapidly performed. I am quite satisfied, from experience, that a shower bath is as salutary and necessary to a house plant as to a sedentary man.

The Chinese *Azaleas* are so easy of culture, and they are so hardy, that they will bloom quite well in a room where "Jack Frost" occasionally enters; and regular watering is almost all they need in the common routine. The main point in growing them, is to watch them well when they are making the spring growth; (for, like the *Camellia*, everything of the next year's thrift and bloom is settled then;) and not let them, at that time, lack water and a little liquid manure every other day.

The best soil for the *Camellia* is made by mixing one-half turfy loam, one-third well-rotted manure, (from an old hot-bed,) and the rest leaf mould from the woods. For *Azaleas*, equal quantities of turfy loam, well decomposed dung, and peat earth. I ought perhaps to add, for the novice, that "turfy loam" is gotten by laying up sods from a good piece of old meadow, or pasture, in a heap to heat and rot.

I will say something of other parlour plants hereafter. Yours respectfully, J. B. W.

New York, Dec. 9th, 1847.

THE CAST IRON PLOW—JETHRO WOODS, PATENT.

A bill is now before Congress, and has passed the Senate, to renew, for the second time, the patent for the Cast Iron Plow.—A. B. Allen, Esq., of N. York, has shown very clearly, that Woods had no right to a patent in the first place, the same kind of plow having been used in this country and in England long before he obtained his patent—and that a renewal of the patent would be equal to a tax of half a million of dollars annually on the farming and planting interests of the U. States, as 50 cents on each plow is charged by the speculators who have the patent right in their possession. We hope that the House of Representatives will give the subject a thorough investigation before they pass the bill. It is believed that the whole thing is gotten up by speculators, and that the original patentee was amply paid for the invention, even supposing it to have originated with him. An idea may be formed of the immense sums received on account of this patent, from the fact, that \$900 has been paid in a single year by one house in this city, on account of the claim under it.

The Executive Committee of the N. York State Agricultural Society have been aroused to this subject, as will be seen by the following resolutions offered by Mr. Tucker, Editor of the Cultivator, which were adopted at a meeting held on the 10th ult., and copies ordered to be sent to the Senators and Representatives in Congress from that State:

Whereas a bill has recently passed the United States Senate, renewing, for the term of seven years, the patent of Jethro Wood for improvements in the cast

iron plow, and imposing a tax of fifty cents on every cast-iron plow manufactured in the United States during that time; and whereas for the following reasons, such an act would be manifestly improper and unjust, viz:—1st. That the patent of Jethro Wood has, as we are informed, almost entirely passed out of the hands of his heirs, and is now mostly held by persons who have conferred no particular benefits and have therefore no special claims on the public; and 2d. That the improvements originated or formerly claimed by said Wood are now in many instances combined with other and later improvements, which have rendered the plow much more perfect than it could be made on the basis of his invention alone. Therefore

Resolved, That in the opinion of this Society, the patent of Jethro Wood ought not to be renewed; he having enjoyed, in the period of twenty-eight years, for which his patent has been granted, a full equivalent for every improvement that may have been made by him in the cast-iron plow.

Resolved, That in the opinion of this Society, the passage of such a bill into a law, would be an act of gross injustice to the Farmers and Planters of the United States.

Resolved, That this Society respectfully but earnestly tenders to the Congress of the United States, its remonstrance against the passage of the bill renewing the patent of Jethro Wood.

B. P. JOHNSON, Sec'y.

THE AMERICAN FARMER.

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BALTIMORE: MARCH 1, 1848.

TO CORRESPONDENTS.—We have received numerous communications, which were placed in the hands of the printer for this month's No. of the *Farmer*, but they are crowded out to make room for a mass of other matter, a large portion of which it is desirable to give, being peculiarly *seasonable* at this time. Among the omitted papers, is a very satisfactory one from Mr. R. N. Milburn, (not R. A., as printed in our last,) on the use of *Ashes*, detailing a variety of facts to establish the position he assumed in his first communication—also one from a correspondent in Mobile, on the subject of the preparation of Bones for manure, which we regret not being able to give at this time, but in our next will accompany it with such remarks as may be necessary,—one from B. E. S. on the periodical failure of fruit trees—another from "*An Eastern Shoreman*," on the health and position of that peninsula—another from "*A Subscriber*," of Warren, Baltimore Co., on the subject of Apple Trees—another from Col. Ware, relative to his Cotswold sheep,—and one from "*A Farmer*" on the Potato Rot—the latter thinks from his experience, which he details, that the only safety is in planting in March, or earlier, and not later than April.

We refer the reader to the advertisement of Mr. DUNAY, in another column, giving a description of his Horse Power Corn Mill.

We publish this month the excellent Address of our venerable friend, Dr. Brewer, President of the Medley's District Society, of Montgomery county. The advice given by the Dr. is worthy of the consideration of the farmers of the whole country, and the thanks of the community is due to him for his zeal and perseverance in so noble a cause. We hope his good example will be followed by the younger members of the brotherhood.

STATE AGRICULTURAL SCHOOL.—Strenuous exertions are being made in the State of New York to establish a model farm and school under the auspices of the State—the details are being discussed, and the plan warmly urged by the agricultural societies—A similar movement is in contemplation in our own Legislature, and we learn that bill will probably be introduced by Mr. Brady, of Baltimore county, before the close of the session, for that purpose.—We hope that the subject will receive that favorable consideration which its importance demands.

We call the particular attention of our readers to the paper of Dr. MUSE, "*On the operation of Ashes as a Manure*." It is written with the usual ability of that eminent farmer and chemist, and should not only be attentively read but digested, as it unfolds alike the experience of the successful practical agriculturist and the learning and research of the scholar, while it displays that continued ardent zeal in the cause of husbandry, which has ever characterized its author through his long and beneficent life.

The apology which our valued friend Dr. M. makes for the length of his paper, is altogether unnecessary, as he who always says something calculated to instruct and interest—whose phrases are ever choice, and whose ideas are based in reason and true philosophy, never fails to receive a cordial welcome from the intelligent and reflecting reader. The only complaint we have to prefer, is, that the Dr. permits too "*long*" a time to intervene between his favors, and we can assure him that this feeling is participated in by our patrons.

GUANO.—We are indebted to Professor Ducatel, of this city, for an extract from "Von Tschudi's Travels in Peru," giving some interesting facts in regard to the Guano trade, and also the manner of its application in Peru. A great press upon our pages, precludes its insertion this month.

MOUNT AIRY AGRICULTURAL INSTITUTE.—It will be seen by reference to our advertising pages, that Mr. Wilkinson of the Dutchess County Agricultural Institute, of New York, has rented the College buildings of Mr. Gowen at Mount Airy, and will open an Agricultural school there on the 1st of April next. We are gratified to find that Mr. Gowen's eligible establishment is about to be thus occupied, and although under the auspices of another, no one who knows the aspirations of Mr. Gowen's heart—who may have witnessed his zeal in the cause of American husbandry—will doubt for a moment but that the

same mind that has made Mount Airy and its fields a pattern farm, will continue its well directed labors to make its Institute a blessing to the country.

From the high character of Mr. Wilkinson, and his devotion to agricultural pursuits, we may anticipate for him the most complete success in his undertaking.

Gen. W. H. Richardson, of Va. writing us upon business, makes the following remarks, which he will please excuse us for adding to this notice of the Institute:

"Accept my best wishes for the success of your valuable paper—as valuable in Virginia, as in Maryland. By letter, from that distinguished and public-spirited farmer, James Gowen, I find that he has actually turned over his beautiful residence Mount Airy, with the large part of his farm to Mr. Wilkinson, principal of the Dutchess Co. Agricultural Institute, I believe—so that the Agricultural College at Mount Airy will yet go into operation. This residence is quite a paradise. What a sacrifice of family comfort and enjoyment for one individual to make for a great cause—what lasting honor is due to him who made it!"

The following notice of sundry correspondents to our Journal, from the Leonardtown Beacon, is too good to be lost—

THE AMERICAN FARMER.—Each succeeding number of this journal shows an improvement on its predecessor. We thought the one for January rather hard to beat, but that for the present month "takes the shine out of it" completely.—The editor is unusually gossipy this time, his correspondents unusually graphic and instructive, and his selections, which are few, unusually entertaining. The "Farmer" can now boast of a capital string of correspondents. There's Col. CAPRON, and JAMES GOWEN, and THOS. F. BOWIE, and W. C. CALVERT, and a half dozen others, who are all tip-top agricultural writers; but the "best ear in the bulk," to our notion, is "A PATUXENT PLANTER." To use an expressive Western phrase, he is "some punkins" with a quill, and the editor has good cause, we think, to congratulate himself upon having won him to the pages of the "Farmer." There is nothing still or formal about him—no cut-and-dried phrases—no prosy preliminaries; but he dashes free-and-easily into his subject, handling it in a manner that cannot fail to make every one who may take up his production, a "willing and delighted as well as an instructed reader." We shall keep an eye to the "punkin" department at the next annual exhibition of our Agricultural Society, and shall select the largest one that can be found, and forward it through the office of the American Farmer to "A Patuxent Planter," as a slight token of admiration and regard for him as an original agricultural writer.

The Marlboro' Gazette, copies the above notice of the Beacon, with the accompanying remark:

We observe with pleasure the growing popularity, as an Agricultural writer, of our quondam friend "Patuxent Planter." His productions are extensively circulated by the press in many of the States—with frequent commendatory notices. It is gratifying to know that the productions of his farm, like the productions of his pen, are of the best quality—and while one affords nutriment to the mind, the other gives "aid and comfort" to the body. As the "Beacon" says, he is "some punkins" and grows large potatoes, and a "good many" in the hill.

[It will be seen that our correspondent "Patuxent Planter" is with us again this month.—Our friend Jones, of Delaware, is called upon to answer certain queries put to him.—The Major will no doubt promptly respond.]

EXCELLENT CORN.

William Govane Howard, Esq., of Baltimore County, sent us some days since three ears of corn of the crop raised by him last season, measuring respective-

ly, 14, 12½ and 11 inches in length, well filled with pearly white flint grains, from butt to point. These ears, we presume, are a fair sample of his crop, and, if so, judging from the appearance and size of his field last fall, his cribs must have been well filled. But such results are not novel occurrences with Mr. Howard, as he has so improved his fine estate, by well directed and judicious management, that the soil scarcely ever fails to produce not only well, but in abundance, and of the very first quality of grain of all kinds. Among the best of farmers we have long numbered Mr. H., and as a proof of the justness of his claims to that character, we need only refer to the past and present condition of his farm.

AMERICAN JOURNAL OF AGRICULTURE AND SCIENCE.—This work, which is now in its seventh volume, has been changed from a quarterly to a monthly publication. During its former form, it was conducted by professors Emmons and Prime, and won a high reputation by its scientific tone and its general and enlightened views in connection with the art of agriculture. In its present shape, the work is to be edited by C. N. Bement, esq. of Albany, New York, a gentleman, who has made himself extensively and most favorably known to the agricultural readers of our country, by his numerous articles on the business of farming, as well as by the skill with which for many years he has pursued the calling of a farmer, and the celebrity he has gained as a successful breeder of improved stock.

There are but few enlightened agriculturists to whom the name of our friend Bement is not familiar—they will feel gratified to learn that he has placed himself in a position to do battle in the good cause, and we are confident that they will agree with us in the opinion, that his journal must, under his care and management, not only earn fresh laurels, but continue to dispense its benefits upon the husbandry of the country. Most cordially do we welcome him into the corps editorial—and as cordially bespeak for him and his excellent periodical, the reward for prospective labors, which we know will be prolific of good results.

[Subscriptions (\$2 per annum) received by the publisher of the "American Farmer."]

AGRICULTURAL CHEMIST.—In the House of Delegates of Maryland, on the 8th ult. a bill providing for the appointment of an Agricultural Chemist to visit the several counties of the State, was taken up, and passed by a vote of 32 to 30. In reply to objections to the passage of the bill, on the score of economy, Mr. Coad, of St. Mary's, rose, and in a most eloquent speech urged upon the legislature their sacred duty to provide for the benefit and protection of the agricultural interest of the State, and thus follow the very best principles of economy.

"A SUBSCRIBER" will be attended to in our April number.

MR. PETER'S CULTIVATOR.—We have received a communication from a correspondent in Gordonsville, Va., who signs himself "*An Enquirer*," who with some of his neighbors, have had cultivators made agreeably to the cut and description of the one published in the Farmer some months ago, as recommended by Mr. Peter, of Montgomery county—Our correspondent is much pleased with the implement, and asks sundry questions of Mr. Peter in regard to it, and other matters—After the receipt of the communication, we noticed in the Montgomery papers, the lamented death of Mr. P., consequently we have deemed it unnecessary to publish the queries addressed to him—In the same paper, "*An Enquirer*" says: "Allusion is made, in a report by a committee, in your October number, to a Cultivator used by Mr. King, in cultivating his corn in the early stage of its growth. It consists, they say, of a bar 2 by 16 inches, attached to a single shovel. Would one of them oblige so much, as to describe it more fully, or send a drawing of it for the Farmer?"

He also asks for minute directions, in relation to the cultivation of corn, "including the distance at which it should be planted, the number of stalks to be left on land that will yield say 6 bbls. to the acre, and almost too undulating to be checked."

78 BUSHELS OF CORN PER ACRE.

In a conversation with Samuel Brady, Esq., of Baltimore county, some days since, he stated to us that during the last season he had obtained an average yield of 78 bushels of corn per acre, off of a lot of 7 or 8 acres in extent. This large crop of corn was grown on ground that had been in wheat the previous year, which was so covered with volunteer clover as to form a clover lay when plowed for corn. The soil, which had been originally good, was limestone bottom land, but which, owing to improvident cropping, had become as "*poor as poverty*" when it came into his possession some five years since. He then put 50 bushels of lime to the acre on it, sowed it in oats and clover. The oats proved a good crop. He let the clover stand, and the next year manured with a compost composed of lime, clay, the scrapings of his yard, and weeds, and plowed the whole in. His crop was an abundant one. Having thus secured a goodly body of vegetable remains in his soil, he prepared a compost of peat, mixed with from 30 to 40 bushels of lime to the acre, and spread it on the land, plowed, sowed it in wheat, and clovered the succeeding spring. By these processes he has been enabled to bring it up to the high state of fertility as tested by his last year's crop of corn—and he feels assured, from his experience, that had the early part of the season not been so dry as it was, that he would have got 100 bushels of shelled corn to the acre, the quantity which he contemplated at the time of planting. That he would have done so, we doubt not. The corn was planted 3 feet by 18 or 20 inches, but much of it was killed by a bug which attacked it at an early period of its growth, thereby curtailing the product.

The plan which Mr. Brady pursues in the manufacture of his manure, as well as in its preservation, is at once judicious and praiseworthy. He has a valuable bed of peat on his estate. This he composes with lime, weeds, scrapings of his yards, lanes, head lands, hog and other manures, and when ready, hauls out, as his convenience allows, upon his ground intended for corn the next year; there it is made into convenient piles, each layer of manure being covered with plaster, and the whole, after being brought into a form to carry off water, is covered with earth. Thus protected, his compost is left until wanted for use, when it is mixed by being shovelled over and spread on his corn ground. By this care he prevents all loss from the escape of the ammonia from his manure, that being fixed by the plaster; and he thinks that one load thus treated, is worth two made in the ordinary slovenly way of most farm yards.

The thinking, reasoning farmer, who may have exhausted lands, will of course put a proper estimate upon the plan of Mr. Brady, and if he should follow his example, we doubt not that he may produce a similar result, as any land which has been once good, may, by judicious manuring, be made so again. No one, therefore, should permit himself to come to the belief, that he can't get manure, as every thing which is susceptible of decay is an element of, and may be converted into manure. The mould and leaves of the woods, the weeds of the fields, those growing in fence corners and meadows, the scrapings of his yard and lanes, the cleaning of his drains, and a hundred other substances which will present themselves to an observing farmer, are all rich constituents of manure—and they, when composted, as were the materials of Mr. B., with lime and plaster, are competent to impart fertility to almost any soil.

GUANO TO CORN IN THE HILL.

"How much Guano will it take to manure an acre of corn in the hill?"

We answer that 50 lbs. will be enough, and that it should be mixed with 3 loads of mould from the woods, or the same quantity of rotten manure, and 1 bushel of plaster to each acre. These should be thoroughly mixed together—the quantity named will give a pint to each hill of corn, which we consider will be sufficient to start the corn plants at the onset, and ensure their rapid and luxuriant growth until the roots shall have got down to the manure which may have been ploughed in. We would not apply Guano alone, in the hill, as the ammonia already formed, is in too concentrated a state to be allowed to come into immediate contact with the seed while in a state of germination. By incorporating it with the mould and plaster, we render the Guano harmless, prevent the escape of its most active and valuable principle, convert what would otherwise be an evil, into a positive benefit, prolong the period of its action, and besides which, add two other ingredients to the soil, which, of themselves, are invaluable as

food, and as the provider of food, to the corn plants.

If the land may not have been manured broadcast, it will require double the quantity of mould, or rotten dung and guano, but the same quantity of plaster will answer, even in that event.

We would remark here, that we feel it due to the cause of good husbandry to state it to be our opinion, that nothing but necessity can justify any farmer in relying upon manuring in the hill for the improvement of his land, as nothing short of broadcast manuring can effect that object—and we will further state, that no system of improvement can be considered good, which does not embrace rotation of crops, liming, clover and plaster. Manuring in the hill may, and no doubt will, ensure a single good crop, but it is too partial in the distribution of the fertilizer to effect general benefit.

Budding.—This operation should be performed during the months of June, July, and August, in the middle States, in the South earlier. It is a safe rule, as to time, to bud when the bud is fully developed, and when, from the free circulation of the sap, the bark may be easily raised from the wood.

Methods of Budding.—Trees are budded by making a transverse section in the bark of the stock and a perpendicular slit beneath it. The bud is then pushed down to give it the position which it is to have—or it may be done by making the vertical slit above the transverse section or cut, and pushing the bark containing the bud upwards into its proper position.

In cutting off the bud, hold the scion in one hand with the thickest end outwards, and with the knife in the other hand enter it about half an inch or more below a bud, cutting nearly half-way into the wood of the shoot, continuing it with one clear slanting cut about half an inch more above the bud, so deep as to take off part of the wood along with it, the whole about $1\frac{1}{2}$ inch long; then directly with the thumb and finger or point of the knife, slip off the woody part remaining to the bud, which done, observe whether the eye or gem of the bud remain, perfect: if not—if a little hole appears in that parts the bud has lost its root, and another must be prepared.

In April, '46, we stated—"this month budding may be attended to:"—we should have said—trees budded last season should now be attended to.

TOP DRESSING OF WHEAT IN SPRING WITH GUANO.

"Would it be advantageous to top-dress my wheat with Guano in the spring?"

It certainly would be "advantageous" to do so, though we should not recommend it, as we go in for the most "advantageous" use of all manures, and especially of those which have to be bought. To a certain extent, we look upon all topical applications of Guano, as an improvident waste of what is a most invaluable manure when properly applied. The Peruvians do, to be sure, top-dress with Guano, but such top-dressings are done at the time of working the crop, and are always immediately followed by irrigation; so that the earth being previously opened by culture, the already formed carbonate of ammonia is carried instantly into the earth by the water,

and thus measurably preserved for the uses of the growing crops; but even in Peru, where it is used under such favorable circumstances, it has proved to be an evanescent fertilizer, and for the simple reason, that it is applied in a way in which the escape of its active principle is sure to result. To insure the greatest amount of benefit to the soil—to make it lasting, and to enable it to assume the character of a comparatively permanent improver—Guano should always be ploughed in. Burying it in the soil prolongs its benefit—the plants derive immediate benefit from the ammonia which may be already formed—the heat and moisture of the earth promotes the change of those other constituents which comprise Guano, which are susceptible of it, into nitrogenous matter, and hence it is, that there is a continuous supply of nutriment being gradually provided, until all the material is exhausted by the plants grown on the soil manured with it.

Top-dressing with Guano will increase the product of a single crop, but will not impart any permanent benefit to the land, which latter object should be the main consideration with every culturist—therefore, it should be ploughed in, as when so treated it will prove comparatively lasting.

AN EXAMPLE TO OTHERS. We feel conscious that we are engaged in a "good work"—that we are "doing the State some service"—that the improvement which is going on in our own and neighboring States, has been in some degree through the instrumentality of our Journal—it having been made the vehicle through which many of our best farmers and planters have made known the means by which they have attained success, in repossessing their worn-out lands, and in making the "desert to blossom as the rose"—we are, therefore, gratified at the evidences we frequently receive, of the approbation of the intelligent patrons of the Farmer, as it cheers us on in our duty to continue to merit their commendation. From one of the most distinguished men of Prince George's, Md. whose judgment and success is well known, we have received the following, which we publish for the double purpose of showing the estimation in which our Journal is held by such men, and to stimulate others to follow his example, in obtaining additions to our list of subscribers, and thereby extending the usefulness of our labors:

"[I obtained these new subscribers with no trouble, except merely stating the true character of the American Farmer, and hope before long to send you more, as our county is improving and highly susceptible of improvement, and we have some excellent practical farmers among us.]"

A valued friend in Harford Co., Md., who is among the very best young farmers of the State, says to us in a letter on business:

"Allow me to express to you the pleasure I feel, at witnessing the steady improvements of the American Farmer under your energetic administration of it. I will say no more for fear you may think I am merely flattering."

WINTER PLOUGHING.—Throughout January I have had ploughing done for three winters much to my satisfaction. At this time, 10th February, the furrows are mellow and crumbling. D. C. W.

SALT.—It is well known to professional men that without constant salting, the system of man and beast is liable to be attacked by parasitic animals (worms). Therefore salt your stock. D. C. W.

DOGS.—The farmers of Ohio have petitioned the legislature to pass a law granting protection to sheep from destruction by dogs. It appears that there are 236,000 dogs in that State.

HUSSEY'S REAPING MACHINE.—Mr. Hussey, of this city, has a petition before Congress for a renewal of his patent for his Reaping Machine.—We have had opportunities of judging as to the merits of the Reaper, and as to the claims of the inventor to the favorable consideration of the National Legislature, and hope his prayer may be granted.—Mr. H. has had to labor under great difficulties and disadvantages in introducing his Reaper to the public, and it is only within the past year that its superiority and great value over every other has been fully established, and that he is now about to reap some benefits from its introduction, which he has hitherto enjoyed.

A Washington correspondent of the *Delaware Journal*, speaking of Mr. Hussey's being in that city, makes the following remarks in regard to him and his patent:

Mr. Hussey is but little known or cared for here, (except by the Commissioner of Patents, who is aware of the justice of his claim.) His business is not directly with the President of the United States, but with Congress. He asks for no office or pension of government: Mr. Hussey only asks a renewal of the patent for his Reaping and Mowing Machine, which lately expired, just as he had got it to work to perfection, and before he has been compensated for his trouble in getting up his invention, the value of which is pretty well understood in Delaware. A little calculation will show its value to the whole Union as a saving of human labor. The Commissioner of Patents estimates the amount of crops of 1847, in round numbers, as follows: Wheat, 111,000,000 bushels; Oats, 176,000,000 bushels; Rye, 31,000,000 bushels—together 323,000,000. Allowing 10 bushels as the average of wheat and rye, and 20 bushels as the average of the oats and barley, we have a total of 32,200,000 of acres of these four kinds of grain under cultivation. To cut this quantity of acres with the ordinary cradle, at the rate of three acres per day, it would require 10,698,000 days of human labor, which, at \$1.25 per day, the average wages will amount in dollars to 13,272,555; but to cut with Hussey's Reaper, at 15 acres per day, requiring but two hands to work it, would require 1,600,000 days of human labor:—showing a saving of \$11,072,555 in those four crops,—provided every farmer had his grain cut with this machine; and besides which, it is useful in cutting hemp and cloverseed, and mowing all kinds of grass, saving all much better than by the other process.

MEDLEY'S DISTRICT AGRICULTURAL SOCIETY.

To the Editor of the *American Farmer*.

November 2nd, 1847.

MA. EDITOR:—The readiness which you have heretofore evinced in publishing the proceedings of the Agricultural Associations of our County, has induced me to send for insertion in your useful paper, the following sketch of the third annual meeting of the Medley's District Agricultural Society, held in Poolesville, on the 20th instant.

The Society met in the school room, together with a respectable number of ladies and gentlemen, who availed themselves of a previous public notice, inviting all who felt an interest in the great cause of Agriculture, to attend.

As the object of this Association is to diffuse a cor-

rect knowledge of husbandry, as deduced from the writings and practical experiments of scientific men—an end which, in the opinion of the Society, can be best attained through the medium of a library; meeting monthly; discussing agricultural topics; trying experiments, and the like, and omitting exhibitions, together with the various items of cost, rivalry and dissatisfaction, usually attendant thereon. There was consequently, little to attract the public, beyond the novelty of the plan and the desire of hearing the Orator of the day; yet, the number present plainly showed the great interest manifested by the reflecting portion of the community on the important and vital question of renovating the poor lands of old Montgomery.

Eleven o'clock (the hour appointed to deliver the address) having arrived, the Vice President, Mr. MATTHEWS, took the Chair—the President of the Society, Dr. WILLIAM BREWER arose and addressed the meeting, nearly as follows:

MR. PRESIDENT AND GENTLEMEN:—I shall not make any apology for the bodily and mental decay produced by 70 summers, or ask why I was appointed to deliver your annual address, but at once take up my subject and treat it as best I may. Agriculture is a most useful occupation, produces all the materials for sustenance, for the exercise of art and skill in furnishing the comforts and even luxuries of man. The farmer fills the most responsible position in society; being a producer of all that is needed to supply the wants of man. If, then, the most elevated and important position is assigned him by his Creator, why is it that he suffers himself to be thrust aside and made to give place to those who are dependent on him? The proper answer is, the want of education. It is difficult under existing circumstances, to have farmers' children taught to fit them for their future occupations; error is practised in the rudiments, and progresses to the end of their education. I would not presume to point out a system for the education of farmers' sons; but I may be permitted to speak of some of the grosser defects. Farmers, generally, do not think a liberal education at all necessary for the successful prosecution of their business; that if they can read, write and keep accounts, it is sufficient for all useful purposes. Many think Science an injury, rather than a benefit, denouncing with scorn, what they denominate book farming—the pupil and his teacher hear these opinions frequently urged, the consequence of which is a negligence on the part of the one and carelessness on that of the other. The father teaches the son to despise Science—he is instructed by a master quite ignorant of Agriculture; all his acquirements are foreign to his future occupation, and he therefore falls into the unskillful practice of his predecessor, and will be apt to pursue it through life. Can we be surprised at the frightful condition we find much of our lands? Too poor for ordinary tillage, it must, under the old system, beggar its occupants.—These are the consequences of a defective education. Common sense would teach us that a knowledge of Geology was necessary to analyze the soil and ascertain its properties; and Chemistry, which in a measure develops the mystery of vegetable and animal life; shows their various wants and appeals to us to apply the necessary remedies, and give the proper food. Mathematics, and especially Mechanics, are indispensable to the conduct and proper management of a farm. There is no class of men in society whose education has been so shamefully neglected, and improperly conducted; hence, for want of sufficient talents the

interest of the agriculturalist is overlooked, and they quietly submit, endeavoring to retrench their expenses to suit their income, while all other communities consult and unite together to advance their own interests, and that too, at the expense of the tiller of the earth. It is self-evident that without a market, your surplus can be of no use to you; that the more extensive your commerce, the greater the probability of a good market. The farmer's condition is not like the laws of the Medes and Persians, unchangeable; even now, you see the successful culture of cotton in the East Indies and Turkey, and under the influence of scientific agriculture, much of the waste and barren lands have been reclaimed, while the more fertile affords much more bountiful crops. The home market, cannot, for many years to come, be sufficient for the consumption of our surplus; therefore, as other nations of the earth learn to supply themselves with Cotton, Breadstuffs, Tobacco, &c., so must we change our culture to the production of new articles now unknown to us, viz: the Tea-plant, Liquorice, Silk, &c. Believe me, gentlemen, the more knowledge and talent you have in your community, the more prosperous will be your business. Having attempted to prove that a proper and liberal education is indispensable to the prosperity of agriculture, I must now draw your attention to another part of my subject, of but little less importance—Industry and careful practice. Knowledge and talents will be of little avail if these are wanting. Ride through the country and you will see many fields not more than half planted, covered with huge clods, enclosed with poor fences, few convenient houses, and they in a state of dilapidation—little or no preparation for the manure bank, &c. Knowledge combined with industry will guard against all these evils, and if united to care and strict attention, will often give a profit to the farmer which under opposite circumstances, will be against him. In order to improve the naturally poor as well as exhausted soils, knowledge, industry, care and attention must be brought into requisition. It is generally admitted that all soils are susceptible of such improvement as will render them capable of producing useful crops, and most of them, profit to the cultivator. Few soils contain matter deleterious to useful vegetation, but all the poor and exhausted have need of something it never possessed, or which has been abstracted. The indication is obvious. You must give what it wants, and it will repay you. Think you gentlemen, this can be done without knowledge, industry, care and attention? It is an undeniable fact, that all manures in common use are not equally beneficial to all your crops. One kind will act best on grass, another on the leguminous, while another acts better on the grain crops. We may go farther still, and show that which is best for wheat is not so for all other grains, both in its properties and condition of preparation; one requiring it thoroughly rotted, another in the early state of fermentation. Most of our land possesses the means of restoration if properly directed by science; it is incalculable how much is lost, annually, for want of judicious application. No farmer need be ever at a loss for the employment of himself and laborers. His wood land, fences, and turning rows, branches and marshes, from whence he can accumulate leaves, soil of the woods, fence and turning rows, mud and scrapings of roads, together with all obnoxious weeds from and about the fields, will afford him a profitable return. The most profitable of all, is to collect the briars and obnoxious weeds, mingle them with stable manure, and in a few weeks they will be fit to dress

the wheat lands; not only supplying good manure, but freezing your fields of a growth, often as exhausting as a crop of grain, (if suffered to seed) and return humus, whether it proceeds from the vegetable or mineral, which from observation and experience, I can but believe indispensable in the formation of good soil. From time immemorial, vegetable and animal manures have been used, and yet a great variety of opinion still exists among farmers, which is the best method of preparing and applying them, giving us another proof of the necessity for education and the use of science. It is a fact, known to most of you, that stable manures are sometimes used without producing the least good effect upon the growing crop, and that too by your most industrious farmers, caused by their unskillful preparation—water sobbed, or fire-fanged, or perhaps applied to a crop not adapted to its use. Of late years through scientific research, many more have been added to the list of manures; mineral, as well as vegetable—crushed bones, Guano, Murate of Soda, (common salt) Chloride of Lime, Nitrate of Potash and other salts, most of which have been beneficially used and with profit to the experimenter, when skillfully managed. The great debt of our State and consequent heavy taxes upon the farmer, does, necessarily, depress their improvement and greatly increase their difficulties.—Much of the land is unproductive naturally, but more which was once good has been impoverished—they are unsaleable, even at a price far below their intrinsic value. We can expect nothing from the government but taxation; let us then as affectionate children, foster our dear old mother in her poverty. Recollect, she sustained us as long as she was able. Accumulate all and every material from your farms that can be converted into manure, procure all the artificial, deal it out bountifully, and be assured she will return you ten fold; it is unmanly, yea, cowardly, to desert her in her poverty, when you have the power to restore her, and benefit yourselves. It is by the use of manures, both organic and inorganic, that you can hope to resuscitate your thin and impoverished lands; first, from your internal resources, then by all other means you may have. Every man whatever may be his condition, can avail himself of the first.

In Montgomery County, to which my attention is more particularly drawn, there is very little Lime, and as far as I know, it is confined to a small district between Monocacy and Seneca creek. This body of land is well known to be among the best lands in the county; the residue is generally destitute, so far as can be proven by analysis. Now, it is generally admitted that all the useful crops contain a small portion of Lime, either in the stalk or blade of grain or both; it would therefore seem to be a necessary food for plants. All lime stone regions, (within my knowledge) under good culture, produce fine crops, nor do I know a neighborhood in this or the adjoining States, where the caustic (burned) lime has been used, properly, on land deficient in lime, that has not, thereby, been made much more productive; it is therefore fair too conclude it is a valuable manure not only as a feeder, but, by its chemical and caustic action, performs a part, indispensable to the improvement of the condition of those exhausted lands. From observation as well as theory, I have come to the conclusion that Lime, above all other manures, should be the first dressing given to these lands; all, in our community, where Lime has not been imprudently used, however impoverished they may be, contain some vegetable, and most of it sufficient mineral matter, to produce a vegetable crop of some

kind, and most, several serial crops, by the judicious use of Lime; if they be returned into the earth, thereby increasing the humus, the soil is made richer in one very important material, upon which the Lime continues to act; the consequence is that several years after the dressing of Lime, the produce is increased. Wherever the earth contains a liberal portion of Carbonate of Lime, there we invariably find a productive soil. The burned or caustic Lime is greatly to be preferred on our lands, for many reasons which time will not permit me to give, on this occasion. It seems to be a food for plants; it acts chemically on soils, on the air and rain as they come in contact, absorbing from them carbonic acid; it neutralises such acids as it may meet in the soil, and forms new compounds for the food of plants; it renders clay land more friable and warm, and sandy land more compact. Without doubt wherever it can be obtained at a reasonable expense, it is the cheapest and most efficient—never failing to render the land more retentive and productive of clover and more durable in its action than any other manure. But, the mere spreading of Lime upon the land is not all the farmer's care; far from it—he should bring to his aid, all his resources; accumulate every material, both animal and vegetable; Lime, as it were puts up the building and fits it for the occupation of other manures. I am decidedly of opinion, that no good farmer ought to cultivate any land which he cannot manure if possible from his domestic resources, but if not, from any other in his power; bearing in mind, that the occasional repetition of Lime is requisite. There is much diversity of opinion, what quantity per acre, should be used for a dressing; according to my opinion, from forty to a hundred bushels of unslacked, on clay lands, perhaps more; however, forty is a good dressing, and from twenty to forty on loose, sandy lands, more frequently used. I cannot too urgently press the use of Lime upon Montgomery farmers, believing it to be an indispensable requisite, but, by no means, to the exclusion of other manures. Encourage and promote the education of your sons, that "book farming," so much despised by many practical men may, by the light of Science, beam its refulgent rays upon the farmers of Maryland, and lead them to the only remaining resource of the restoration to the soil, of that which it has been deprived of. There is another item in Agriculture, of as much if not more importance than manuring—ploughing and preparing your fields and cultivating your crops. It would be out of place here, to attempt a minute description of this necessary part of cultivation.—Good husbandry requires the soil to be deeply and freely opened and pulverised, not only for the free expansion of the roots of plants, but the free admission of rain and air.

Mr. President, in all probability, this will be the last time I shall publicly address you; permit me to say a few words about our Society. Having been one of its founders, it is natural I should feel much interest in its welfare; therefore, I will speak of the leading features of your institution. Your Constitution requires all your funds to be applied to the creation of a Library. You have a Committee on farms, whose business it is to inspect the farm of each member and make faithful reports of the condition. Each member at the beginning of the year, is to take an experiment, carefully executed; and, at the end of the year, make report thereof. The Society is required to meet every month; Agriculture to be the subject of discussion. Under this system, it has progressed two years, in which time we have

collected upwards of thirty volumes, containing some of the best agricultural works written in the English language, to which the members have free access. A general disposition to improvement has taken place in your immediate neighborhood, more especially among your members. I hope I shall not be accused of being vain, if I should attribute a part of this to your institution—how happy the reflection! It often happens that learned men benefit others more than themselves, for, while they are studying and experimenting, the looker-on observes the result, and lays hold on that which is profitable, without expense to himself. How much more honorable is the one than the other! He is a public benefactor, while the other is a mere drone, profiting by the labor of the intelligent and industrious. You are engaged in a noble cause, which will not only redound to your honor and prosperity, but to the benefit of your fellow men and to your country. Need I remind you that, to obtain this good, you should be punctual in attendance as members, and each should contribute as much as possible, both in science and experiment, that you may be able to impart to each other; that all may be benefitted, and as a bright constellation, reflect your light abroad.

Gentlemen, the eyes of your neighbors are upon you, looking with expectation, for successful results from your labors. Will you, can you disappoint them? Your honor and every ennobling principle of man urges you on. You have commenced and must zealously press forward.

This assemblage of the fair sex who have honored us with their presence, and who are naturally inclined to do acts of mercy as well as to approve of meritorious deeds, evince, by their presence, the interest they take in your success—that sex who in all ages have incited men to the most daring, as well as most honorable acts, fit objects of your honor, esteem and love, smile on your efforts and encourage you to advance. Let us, then, by our punctual attendance and future exertion, not only merit their approbation, but deserve their applause.

At the conclusion of the foregoing excellent Address, the Society passed a resolution, soliciting of the Speaker, a copy of his discourse for publication. The President, in reply observed, "though he felt highly honored, that his remarks before them should be deemed worthy of publication, yet he felt a reluctance to comply, in consequence of not anticipating such a wish when writing his address, which would require to be better prepared ere it went to press—a trouble which, at his advanced years, he did not much like—yet gentlemen, such as it is, I shall now place with the Secretary of the Society."

Dr. NICHOLAS BREWER was then directed by the Society to purchase a good Apparatus to analyse the soils constituting the farms of the members.

Some specimens of growing Wheat, from the farms of the Messrs. POOLE, to which Guano was applied, were exhibited, which showed, to an astonishing degree, the powerful effect of this element in producing a luxuriant vegetation.

Next followed the reading of the Agricultural experiments of the members on various crops—but as I have extended my communication much longer than I expected, I shall add no more, but retain the balance for some future number of your paper.

P. H. M.

We see by the Boston papers, that the Legislature of Massachusetts are about taking measures to establish a model Farm and School in that State.

HORTICULTURAL.

WORK IN THE GARDEN FOR MARCH.

Though in the Southern States the labors in the Garden began weeks gone by, March is a month in which such labors, in open culture, in the Middle States may be said to commence; for unless the spring be singularly protracted, there is scarcely any work that may not seasonably be done now. Let us then take time by the forelock to say to such of our readers as may not have provided themselves with well appointed gardens, that they should delay no longer in the fulfilment of what we conceive to be an imperative duty upon the head of every farm-house—that of providing for his family such a garden as will yield a full supply of every variety of vegetables and herbs, shrubbery, fruit and flowers—say such an one, as combines utility with elegance—one in which the eye as well as the appetite may find the elements of feasting, comfort and pride.

Sowing Seeds.—Prepare a bed on a warm border, by manuring it well, dig the manure in spade deep, rake until a perfect tilth is obtained, then spread an inch of a compost made of 6 parts rotten dung and 2 of ashes, rake this in, and sow the following seeds thereon, in divisions; as *early and late cabbage, lettuce, tomatoes, egg plant, cauliflower, broccoli*. The seeds being sown, rake them lightly in, and finish by patting down the earth with the back of your spade.—As soon as the plants come up, dust them with a mixture of equal quantities of soot and plaster. By attending promptly to getting in the above seed on a good warm border, facing the South, you will secure to yourself a full supply of plants of each of the above vegetables, and thereby add to the luxuries of your table.

Should the *fly* or *lice* attack your plants, you may get rid of them, by putting 4 ounces of *Flour of Sulphur* and a quart of soot into a bag, and pouring 4 gallons of boiling water over it. When cool, water the plants with the decoction. At this season the watering is most safely done in the morning. By repeating it two or three days in succession, you will not only get rid of the fly and lice, but give an impetus to the growth of the plants.

Early Peas.—If you desire to obtain a supply of this delicious vegetable for your family, select a dry loamy bed, with a good exposure, manure it moderately, dig, and rake it until it is in fine tilth—then lay off drills 4 feet apart, North and South, 4 inches deep, drill in your peas and cover them, taking care to spread over the drills, after the peas are covered, half an inch in depth of rich mould, or the same quantity of well rotted manure. To secure a continuous supply, it is well to sow at intervals of two weeks during this and the ensuing month—or, you may sow early and late varieties at the same time.

Cabbage and Lettuce Plants.—If you have been so provident as to have grown these in a hot-bed, as we

recommended you to do, you should prepare beds and set your plants out, as they may now be safely entrusted to open culture. To prevent the plants from drooping, prepare a cream-like substance in a basin, by mixing, say a quart of rich garden mould, a pint of soot, and 1 oz. of flour of sulphur together, adding thereto just as much water as will reduce the ingredients to the consistency of cream. As you draw the plants from the bed, dip their roots in this mixture, and insert them in the ground. By this attention, you will prevent their drooping, give them an early start, and save them from the cut-worm. The plants should be inserted in the mixture to the full extent of the stem.

Beans.—Prepare a bed and plant the *Lisbon, Windsor* and *Mazagan* varieties of beans. These varieties are among the most hardy and are excellent table beans. A clay soil is best adapted to the growth of the bean,—and it would be well to top-dress the drills with ashes.

Plants generally.—Plants, of almost every variety of vegetables, may now be transplanted from the seed beds to open culture, as *cabbage, lettuce, tomatoes, egg-plants, &c.* In the preparation of the beds, care must be taken to manure liberally, dig deeply, and thoroughly rake. No one ever yet lost by being attentive in these particulars. To begin right is one half the battle.

Pot and Medicinal Herbs.—The seeds and roots of Pot and Medicinal herbs, should now be sown and planted out, as *Thyme, Parsley, Hyssop, Rue, Tansey, Spearmint, Peppermint, pot-majorum, chamomile, sweet majorum, sage, chives, shallots, bulsam, celandine, lavender, summer savory, garlic, &c.*—and by the way, no garden is complete in its appointments, wherein the whole may not be found growing.

Radishes.—Select a loamy border or bed, manure it well with well-rotted manure, dig the manure in, rake fine, and sow radish seed—after raking the seed in, press the earth with the back of your spade, and then sow ashes over it. At intervals of two weeks, through the season, sow more seed, and you will secure yourself in a constant supply of fine crisp radishes. The *Salmon, Short-top, Turnip-rooted* and *Scarlet* varieties, are best to sow now.

Early Potatoes.—These should be planted so soon as the frost is out of the ground, and a bed can be prepared for them. Were we about to prepare a square in our own garden, with the view of raising early potatoes, we should select the driest plot of ground at our command, manure that broadest with about half the quantity of long manure that we intended to appropriate to the ground, we would have that spaded in the full depth of the spade, taking care that the spadesman took narrow slices, and that he thoroughly broke every spadeful of earth as he turned it over, and that he raked every three feet as it was dug up, in order that the soil should be reduced to the utmost fineness of tilth of which it was sus-

ceptible. We would then lay off our bed in drills 5 inches deep, 3 feet apart—cover their bottoms with a compost comprised of 6 parts rotten dung, or rich mould from the woods, 1 part lime and 1 part ashes, and having placed the sets therein, at the distance of 10 inches asunder, we would give them a slight dressing with the above compost and cover up the drills with the soil.

The potatoes should be cut some days before the time of planting, and the sets so cut as to leave two eyes to each; as cut they should be dried in plaster, lime, or ashes, and put away in a dry place, where they would not be subject to freezing, until planted.

When the plants came up, we would give them a dusting with a mixture of equal parts of plaster and salt. In making this latter recommendation, we are not influenced by any idea that the mixture would operate as a panacea against the rot, for we are free to confess our want of faith in all such nostrums; but because by means of the sulphuric acid in the plaster we should expect to attract much nutrition for the plants from the atmosphere, as well as prevent any loss of it, by evaporation from the soil, and because we have faith in the virtue of a moderate dose of salt as a manure, and believe it to be one of the best repellants that can be used against the whole insect tribe. We would apply it while the dew was on the vines in order that some portion of it might adhere to them. In order that the dressing might be the more general in its effects, we would broadcast the whole plot of ground. In working and hilling the potatoes, our great object would be to prevent the growth of weeds and grass, and keep the soil open to the action of the atmosphere.

Early Turnips.—This is a vegetable, which every family should grow in their garden, but which most farmers neglect, never dreaming of anything but a patch for fall and winter use. A bed, 20 by 40 feet, would grow a supply for table use even for a very large family, and as such is the case they should not be neglected. As all do know who have thought upon the subject, the sweetest turnips are grown upon virgin soil, and, therefore we recommend that a compost be formed for a bed of the dimensions we have named of 1 double horse cart load of mould from the forest, 1 of well rotted stable dung, 1 bushel of lime, and 1 bushel of ashes. That one-half of this compost be spaded in, and the other half used as a top-dressing to be raked in well, just before sowing the seed. We would soak the seed 12 hours in fish oil before sowing them. When sown we would rake them in, then sow a compost composed of equal parts of plaster and ashes over them, and finish the work by patting down the bed with the back of the spade, or by passing a garden roller over it—and by the way, every garden should be provided with a small hand roller.

The moment the plants showed themselves above ground, we would pass over the bed and sprinkle

fish oil over them, to make them distasteful to the fly and flea, and thus secure the plants against the ravages of those fatal enemies of the turnip. This operation should be repeated each morning until the plants had got into the *rough leaf* state. If oil should not be at hand, a mixture of plaster and soot, in equal quantities, should be sown over the plants for two or three mornings in succession, while the plants were still wet with the dew.

All the working which the turnips will require, will be to extricate the weeds by hand and hoe, and thin them out so as to stand about 6 inches asunder, at the time when the roots begin to *bottle*, when they may be laid by. Two such workings will be sufficient, and could be performed by a hand, at each time, in a couple of hours at farthest, provided he were moved by a will. The best kind of early turnips that we have ever raised, is the *Early Dutch*. They arrive at early maturity, and are a sweet table vegetable.

Salsify.—Prepare a bed by manuring as you would for parsnips, digging and raking well, then draw drills with a hoe 12 inches apart and 2 inches deep. Then sow the seed thinly, cover with the rake, and press the ground with the back of it. In May thin the plants out so as to stand 6 inches asunder. In cultivation, your object must be, to keep the plants clean and the ground open.

Artichokes.—The seed of this vegetable should be sown early this month.

Horse Radish.—Early this month select a moist bed, and set it with this most excellent root. The ground should be generously manured with well rotted dung; trench spaded, thoroughly raked, and the sets planted 6 inches asunder every way.

Rhubarb or Pie Plant.—The plants of this vegetable should be set out early this month—where there are no plants to be had, the seed may be sown, the earlier in the month the better.

Fruit Trees of all kinds, shrubbery, grape-vines, raspberries, gooseberries, &c. should be planted out in the early part of this month,—so also should they be pruned as early as possible. If you should, perchance, have none of these in your garden, conclude at once that you have been thus far in error, and make up your mind to remedy that error forthwith, by getting some of each and planting them out, for you may rest assured that a garden in which they are not to be found, is but a mockery of the thing it would seem to be.

In the pruning of fruit trees, we are not the advocate of much cutting. As a general rule, we would content ourself with cutting off all the dead limbs, or such live ones only as interfered with the free circulation of the air and the diffusion of the sun thro' the head of the tree. Every wound thus made should be nicely smoothed off—where a dead limb is cut off, it must be cut down to the live wood. Every wound thus made should be covered from the weather with one or the other of the following preparations:

1. Take equal parts of fresh cow dung, lime and clay reduced into the substance of mortar with water. When prepared, cover the wound with the mortar, and place a cap of coarse paper over it.

2. Take in the proportion of 1 lb. of rosin, 1 lb. beeswax, melt these over a slow fire, keeping them well stirred to mix them thoroughly. When melted, take it off the fire and add $\frac{1}{2}$ pint spirits of turpentine, stir the whole well together, and while warm paint the wound with two coats of the mixture, and cap with paper as above.

The pruning being done, each fruit tree in the garden should have its trunk painted with the mixture of soft-soap, flour of sulphur and salt, as recommended in the "Work on the Farm," under the head of "Orchard."

Strawberries.—Have you a bed in your garden? Yes. Then give it a dressing of well-rotted manure, work that in so as not to injure the vines and to clear off all weeds—then lay long straw between the alleys confined with wooden forks to prevent its being blown away. Should the weather prove dry when the vines are in bloom use the watering pot freely between the rows, the nozzle well down to the ground, so as not to wash away the farina from the flowers, and such attention will ensure you a luxuriant crop of fine large fruit.

If your garden is without a strawberry bed, procure the plants and set one out without any further delay. He that has plenty of cream and milk should never fail to provide strawberries for his family.—They are as healthful as luscious.

Asparagus Beds.—These should be dressed with a compost made of 7 parts well-rotted manure, and 1 part ashes. Incorporate these well together; then spread the compost about 2 inches thick between the alleys, taking care not to injure the crowns of the roots in forking in the manure. This done, rake smooth, and sow over the bed, at the rate of a gallon of salt to every 80 square feet. By pursuing this course you will have fine large, early Asparagus.

If you have not a bed of asparagus, now is the time to make up for that deficiency, by sowing the seed.

Brussels Sprouts.—Prepare a bed as we have directed for early turnips, and sow a bed of Brussels sprouts seed. They afford an excellent sprout, and plenty of them, and will come in ready for the table at a time when other vegetables are scarce.

Sowing Onion Seed.—Select a loamy bed in your garden, manure it moderately with well-rotted manure, dig it nicely, and rake finely; then lay off drills 12 inches apart, 2 inches deep, drill in your seed thinly and cover with the rake, pressing the earth down over the seed with the back of it. When the plants are large enough to work, clean and thin them out, so as to stand 4 inches apart in the rows—in a few weeks, give them another working, and repeat it at an interval of two weeks, and you will have completed all the culture necessary until it shall be time to bend down the tops to hasten the formation

of the bulbs. If you desire fine large mild roots, water them frequently, and give at least two waterings with a decoction of horse-dung. While one is growing an article, it is always profitable to endeavor to excel one's neighbors. Such rivalry is not only justifiable but laudable:—so if you wish to have the biggest and the mildest onions in your neighborhood, follow our advice and we will guaranty you success at a very small premium.

Selling-out Onion Bulbs.—If you have small bulbs of last fall's growth, prepare a bed as above directed, and set them out in drills 1 foot apart, 4 inches asunder, and cultivate them as we have advised in regard to those to be raised from the seed.

An opinion prevails with many, that onions of good size cannot be raised the first season from the seed, but this is erroneous, as we well know, having cultivated them for years with success in that way—and we will here take occasion to say, that we know of no agricultural product that will yield more money per acre than it, where proper care may be paid in its culture.

Early Celery.—The seed of this excellent, healthful vegetable, should always be sown as early as by the absence of frost the ground can be got ready. Sow the seed in a mellow loamy border or bed. The plants will be ready to set out in May. Manure the seed bed with well-rotted stable manure, dig it in spade deep, and rake until every clod is reduced to fine tilth, then sow the seed tolerably thick on the surface, and cover them with half an inch of rich mould. This done rake the bed very lightly, to level it, taking care not to rake the seed to the surface, then complete your work by gently patting down the earth with the back of your spade. In dry weather the bed should be watered.

Carrots, Parsnips and Beets.—For early use these fine table roots cannot be got in too early this month. Therefore so soon as your ground will admit of it, prepare a bed for the reception of your seed. For a moderately sized family a single bed in most gardens will grow a supply, and hence they may all be raised in the same bed, which should be manured liberally with a compost composed of 7 parts decomposed manure, and 1 of ashes. Spread this evenly over the bed, dig it in deeply, taking care that the spadesman breaks the earth well with the back of his spade as he turns it up, that he takes small slices at a time, and rakes it thoroughly afterwards, so as to reduce it to the finest possible tilth. Your bed being thus prepared, draw your garden line across it North and South, and with the corner of your hoe draw drills half an inch deep, 1 foot apart, then sow the seed as thin as possible in the drills, and cover with the rake, gently compressing the earth over the seed as you go along.

To ensure an early germination to the seed, it is best to soak them 6 or 12 hours in hot water made near the boiling point. Before however the carrot seed is submitted to the water, they should be mixed

with dry sand and rubbed between the hands. When you are about to sow the seed, *drain off the water thoroughly*, and dry them either in ashes, or plaster, so as to prepare them the better for sowing. Soaking encourages early germination, while the ashes or plaster, not only renders the seed more easy of being sowed, but acts as a manure and gives an impetus to the growth of the plants. Should drought ensue, the bed should be watered, and would be the better of a dose or two of a decoction of horse dung, a bushel of which would make a hogshhead sufficiently strong to bring forth the plants in vigor.

Thinning out the plants.—When the plants are about three inches high, thin out the carrots so as to stand 3 inches in the drills, the parsnips 4 inches apart, and the beets 5 or 6 inches asunder.

In thinning out the beets, wherever two apparent heads present themselves, as belonging to one plant, one of these must be pinched off with the finger and thumb. *Culture.*—The great object with the culturist must be, to keep the bed entirely clean of weeds and grass, and the ground open, so that with this general rule in view, he will be able to judge when his carrots, parsnips and beets should be worked.

Small Salading.—All kinds of small salading should be sown as early as possible this month, and to ensure a continuous supply, the sowing should be repeated at intervals of two weeks.

Spinach.—Sow the seed of this excellent vegetable every two weeks for some months to come, and you will secure to your family a continuous supply of one of the most grateful vegetables that ever graced the dinner table.

Early Red Peppers.—If you desire an early supply of these, sow a few seed in a flower pot, which must be protected of nights, after the plants come up, until all danger of frost shall have passed by.

Seed Onions.—Set out your bulbs to raise your seed from—set them a foot a part in some open place.

Seed Turnips and all other garden roots, or other vegetables, intended for seed, should now be set out in open situations, where they will have ample room, sun, and air, to elaborate and mature their seed.

Fig Trees.—If you have a good warm spot in your garden, and desire to cultivate figs, recollect this is the best month in the year to plant them out. The fig can be propagated as well from cuttings, as from young trees, layers, or suckers.

To propagate from cuttings, procure the ripest of the last year's shoots, from 12 to 15 inches in length, cutting them off with about 2 inches of the preceding year's wood at their base. Plant these cuttings 6 or 8 inches deep, in good loose deep soil, in rows 2½ feet apart, the cuttings a foot asunder. Here they must remain 2 years, when the trees will be fit for transplantation. In planting them out into their permanent locality, they should be placed from 12 to 15 feet apart.

Annual Flower Seeds and Bulbs.—These of most

kinds may now be sown or planted out.

We thus close our memoranda of the things that should be attended to this month, and most cheerfully rely upon the presiding geniuses of the garden for the faithful carrying of our recommendations into effect, as we know that every impulse of their hearts, all their aspirations, and all their hopes, are moved by that high sense of the obligations of duty which converts toil itself into the source of pleasure, and treasures the comfort and happiness of those around them as beyond all price.

LADIES' DEPARTMENT.

REARING OF POULTRY.

Rearing Poultry.—As the time to lay the groundwork for raising poultry is at hand, we will respectfully call attention to the subject by briefly stating our plan for the management of each variety usually raised on the farm; and as we hold it to be intimately connected with the success of each, we will state, that *Poultry houses should be thrice a year white-washed, at all times kept clean, well ventilated, and have freshly slacked lime occasionally spread over their floors*; that there should be constantly kept convenient to the hen house, accessible to the chickens, deposits of old plaster or lime and heaps of ashes and sand. The plaster and lime being essential to enable the hens to form the shell of their eggs, and the ashes and sand necessary for them to dust in, as protection against the chicken lice, which so annoy all fowls, both old and young, and which so often kill the latter.

Young Chickens.—As these are hatched they should be taken from the hens and kept in a basket lined with wool or cotton, until the hen completes hatching out her brood. While the mother is engaged in this work, the chicks should be fed with corn meal dough, moistened with boiled milk, or the crumbs of pone or wheat bread, similarly moistened, every few hours through the day. At night, until the mother has finished her labors, let the chickens be restored to the nest, unless there be reason to apprehend that the nest is lousy; in that case, it will be best to keep the chickens in the basket, protected from cold. When the chickens are all hatched, the mother and her brood should be placed under a coop, which should be so made as to protect her and them alike from sun and rain, the slats to be so arranged as to admit of the passage of a free current of air. The coop should be occasionally removed, as it is at all times necessary that the young should be kept dry and clean. While the chickens are young it would be better that their food should be cooked, to prevent their being scoured; and therefore, for some weeks we would confine them to the crumbs of pone or wheat bread, moistened with boiled milk. They should be fed thrice a day; water should be given them in a very shallow vessel, which should have slats across it to prevent the chickens from getting in and wetting themselves; they are extremely ten-

der until they become fledged, and should be kept dry. In rainy weather it would be best for the mother and her young to be removed to the shelter of a room where the chickens could be protected from the weather, for we are satisfied that more chickens are killed by getting wet than from any other cause. *Chives* should be cut fine and mixed with their food thrice a week. Young chickens are subject to *diarrhea*: to correct this, a tea-spoonful of pulverized *chalk* or *charcoal* should be mixed with every cup full of meal or other food fed out to them. While the mother is confined in the coop, she should be as far removed as possible from the dung heap. A handful of gravel should be placed within her reach; she should have food and water regularly given her thrice a day, and care must be taken to grease or oil the back part of her head, down her neck and under each wing, to destroy any lice with which she may have become infested while setting. A small piece of *assafoetida*, if kept in the vessel in which the chickens are given their water, may prove both preventive and curative of the *gapes*, a disease which we believe to be the result of *worms*. In chilly days we have found it serviceable to mix up a little pulverized black pepper with the young chickens' food. We have found boiled millet seed an excellent food for the young, while we have given it uncooked to the old with excellent effects. Hens, while laying, should have their food alternated, sometimes Indian meal dough, then corn or buckwheat and again oats.

In raising young chickens, care must be taken to keep them dry, feed them regularly, and give them fresh water, which should be renewed whenever it may be rendered dirty.

The nests of the laying, as well as setting hens, should be preserved from lice. This may be effected by making them of clean straw, placing a few tobacco stems at the bottom, dusting a little ashes through the nest, and greasing the under part of the wings of the hens where they join the body, as also the back of their heads and necks. It may be done also, by using snuff and grease, instead of grease alone—this last plan we do not approve, though effective, as it is apt to sicken the hens for a time.

Garlic, *Chives*, and *Shallots*, chopped up very fine and mixed in small quantities with the chickens' food occasionally, exert an excellent influence upon their health. Young chickens, while feeding, should always be protected from the large fowls.

Ducks.—The old ducks, if they have not access to creeks or rivers, where they will find food adapted to their nature, should have animal food mixed with their grain or meal, and if it be expected of them to lay well, attention must be paid to their being regularly fed night and morning. This attention not only ensures plenty of eggs, but attaches them to their homes.

It is best to set the duck eggs under hens, as ducks are but indifferent setters and nurses. Thirteen duck

eggs are as many as a hen can conveniently cover. One drake to five ducks is about the right number for breeding purposes.

As the ducks are being hatched they should be taken from the hen and placed in a basket, as recommended for young chickens. Boil a piece of fresh meat of some kind, chop it very fine and mix it up with corn meal dough, made with boiled milk, as for the chickens, and feed the young ducks. When the hen has hatched all out, place her and her young brood under a *coop*, where they must be regularly fed three times a day as above directed. They should be kept with the hen until they begin to get feathers on the sides of their bodies, when they may be turned into the poultry yard with the other fowls, but you should always recollect that if you expect them to become fine large fowls, you must feed them well, not omitting to give them occasional meals in which animal food is mixed, and that they should be kept dry. Water is the proper element of wild ducks; nature has provided them with an oleaginous substance that nearly renders them impervious to water—not so with the tame or domesticated duck when young. On being exposed to wet, their feathers become ruffled; perhaps this is owing to their not being able in a farm yard to obtain that kind of food which enables the wild duck to secrete that peculiar oil which protects their feathers from wet. Be the cause what it may, the fact is obvious, that young tame ducks, in the early stages of their existence, are injured by becoming wet, and that disease and death is the consequence. Therefore, they should be kept in their coops for some weeks of a morning, until the dew is exhaled by the sun—and hence their coops, while being made water-tight, should be so arranged that they can be kept in them whenever it may be necessary to screen them from rain or dews. Fresh clean water should always be before them to drink, but never to dabble in. As they attain age and become feathered, they may have access to ponds or running streams—not before. Their food then may be advantageously made of boiled potatoes and corn meal, homony, and corn. While growing, they should at all times be plentifully fed, as stinting them while in that state, invariably stunts their growth.

As tame ducks are promiscuous layers and will drop their eggs anywhere, they should be kept in the duck house of a morning until they shall have laid their eggs.

Young Turkeys.—These are delicate and chilly bodies and require the utmost attention to raise them. For many weeks after being hatched they require to be kept dry and warm and to be fed with stimulating, nutritious food. As soon as hatched they must be taken from the mother and given a grain of black pepper, then be put into a basket lined with wool or cotton, and lightly covered with the same material. If the weather be cold, the basket should be placed sufficiently near the fire to keep them measurably warm. In a few hours after being

hatched and thus treated, they must be fed with hard boiled eggs, chopped fine. This food may be advantageously continued for a few days. After the *third day* it might be well to mix with the eggs a little crumbs of pone bread or stale wheat bread, moistened to a proper consistence with the curd of sour milk, off of which the whey has been strained, and with which the tops of the wild onion or chives, chopped fine, must be mixed. This kind of food, with occasional messes of *boiled wheat, millet or rice*, should be continued for about eight weeks, never omitting to season them with the tops of the wild onion or chives, as above directed.

The hen turkey, when first given her brood, should be placed in a dry, warm apartment, be regularly fed and watered thrice a day. The young ones should be fed oftener, be given water regularly, which should be placed in a shallow vessel, so that they cannot wet themselves, as *wet* is fatal to them. In a few days, say three or four, a pen should be prepared out of doors for the old hen turkey, which should be so made at top as to *turn rain and afford shade*, as both sun and rain are injurious when the chicks are quite young. It is best too, to have a separate coop, in which to feed the young ones, as, otherwise, the old hen would be sure to appropriate the largest share of the food to herself at the expense of her brood.

As the young turkeys get older and stronger, and their digestive organs become strengthened, say in about eight weeks, the old hen may be let out of the coop and her young fed on cabbage leaves or lettuce chopped fine, mixed with small homony or boiled potatoes; but, even at this stage of their growth, the chopped wild onions and chives should not be omitted, as they still require the stimulating effects of these herbs to give tone to their stomachs and diffuse a warmth through their systems.

Those who desire to have *fine, well grown birds*, must recollect that, to ensure this result, the turkey must be well fed during its entire stage of growing—they should recollect also, that the turkey, though domesticated, is of a wild, roving nature, and that, unless attached to its home by kindness and care, will be apt to take to the woods: to prevent which, they should be fed in the poultry yard night and morning, and thus made to love their homes. They need not be *stuffed*, but still they should be *fed*, generously *fed*.

The Snuffles and Gapes.—Young Turkeys, when about three or four weeks old, are sometimes liable to be attacked by these diseases:—and we are told that they may both be cured by mixing a tea spoonful of flour of sulphur in as much corn meal as is usually fed to 20 young turkeys. This must be given once a day until the disease, whether snuffles or gapes, disappears, which it will do in a few days. It is reasonable to presume, if sulphur will cure these diseases in the Turkey, that it would prove equally

efficacious if administered to Chickens—and as the remedy is simple and inexpensive, it is certainly worthy of trial.

The Scours.—If the young turkeys should be attacked with this disease, mix a table-spoonful of pulverized charcoal or chalk with every pint of their food.

Geese.—As the goslings are hatched they must be taken from the mother, and cared for as recommended for young ducks. When the goose has hatched all the eggs, the young must be given her, though it would be best to keep her confined for two or three days, when she and her young brood may be turned out into the kitchen yard or lane. The goslings should be fed with crumbs of bread soaked in boiled milk, or with corn dough, made up with bonny clabber, frequently through the day for the first week. When they gain strength enough to follow their mother, without danger of being seized with the cramp, she may be permitted to range somewhat at large in search of grass, that being the natural food of the goose. Chives chopped up fine and mixed up with their food once a day, will be found beneficial. When the goslings get 6 or 8 weeks old, they may be allowed messes of boiled potatoes and Indian meal dough, in which chives have been chopt fine and mixed.

Goslings are liable to *diarrhea*: this may be checked by mixing a tea-spoonful of powdered chalk or charcoal in a pint of their food. The same precaution is necessary with regard to water, with young goslings, as with young ducks. Their drinking water should therefore be given them under the same restrictions, and as much care taken to preserve them dry as with the young of ducks. The goslings should have clean straw placed beside their mother for them to sleep on in the goose house at night. The house should at all times be kept clean.

It may be well to observe here, that each kind of poultry would be the better of having a separate house for their accommodation.

FRUITS RECOMMENDED.—The N. Y. State Agricultural Society, at their last Annual Meeting, adopted sundry rules of Pomology for the guidance of their Fruit Committees, which are published in *Hovey's Magazine of Horticulture and Downing's Horticulturist*—to which is appended a list of Fruits recommended by the Committee, viz:—

PEARS.—Summer—Bloodgood, Dearborn's Seedling, Madeleine. Autumn—Fondante d'Automne, Bartlett, Seckel, White Doyenne, Swan's Orange or Onondaga, Stephens' Genesee, Beurre Bose, Louise bonne de Jersey, Doyenne Gris, Washington. Winter—Beurre D'Arenberg, Glout Morceau, Winter Nelis, Vicar of Winkfield.

PLUMS.—Jefferson, Huling's superb, Reine Claude Schenectady Catherine, Bleeker's Gage, Columbia Peach Plum, Lawrence's favorite, Albany Beauty, Washington Bolmar, Prince's Imperial Gage, Coe's Golden Drop, Denniston's Red, Prune d'Agen, for Prunes.

GRAPES FOR OPEN CULTURE.—Catawba, Isabella.

CHERRIES.—May Duke, Black Tartarian, Yellow Spanish, Holland Bigarreau, Elton, Downer's Late.

PEACHES.—Early Tillotson, Crawford's Early, Red Rareripe, George IVth, Grosse Mignonne, Coddge's Favorite, N'alta, Red Cheek Melocoton, Brown's Morris, Morris White, Yellow Rareripe, Royal George.

STRAWBERRIES.—Large Early Scarlet, Hovey's Seedling, Swainstone Seedling.

FLORICULTURAL.

WORK FOR MARCH.

Prepared for the American Farmer by S. Feast, Florist.

Camellias, still continue flowering, should have plenty of water, occasionally giving a little liquid manure, or guano. All plants of straggling growth should be cut in, to improve their shape. Inarching can be performed this month—Cuttings may be put in at this time—plants that want repotting can be done now.

Geraniums, showing flower buds, should have plenty of air and water—repot such as were not attended to last month, and keep clean by fumigation.

Cactuses, that have been kept dry through the winter, should now be brought forward; give plenty of water and light to bring them into flower.

Roses will now be in full bloom, if they have been properly attended to during the winter months—water freely, fumigate, and give plenty of air every day—Cuttings can be put in this month.

Verbenas, will begin to flower now; keep them, as near the glass as possible, and give plenty of water.

Orange and Lime Trees, can be brought forward this month by watering freely.

Dahlias, *Tuberose*s, *Amaryllis*, &c. should now be repotted and placed in a hot bed, or warm greenhouse.

Lilium Lancifolius, and other species should now be repotted.

Pansies, *Phlox Drummondii*, *Ten week Stocks*, and other tender Annuals, should now be sown in hot-beds or pots for transplanting.

Hardy Annuals, can be sown in the open borders. Care should be taken to cover the seed not more than a quarter to half an inch of soil. If the borders have been long in use or under cultivation, fresh soil from the woods or pasture land should be applied before sowing the seed, as many of the fine varieties frequently perish in old borders—then the fault is generally laid to the seed or seed man who supplied it.

Hyacinths and *Tulip beds* will need attention—uncover about the latter part of the month.

Chrysanthemums should now be divided.

Azaleas will now begin to bloom, and should receive an increased supply of water.

Plants in frames will need plenty of air every fine day.

All plants in sitting rooms should have their leaves sponged frequently to keep them clean.

BALTIMORE MARKET—FEBRUARY 26.

Stocks.—The recent news from Mexico, of the probability of Peace, had a salutary effect on stocks of every description, but a slight re-action has since taken place—the prospect, however, is, that peace will result from the offers of the Mexican Government. The last news from Europe has had a tendency to depress flour and grain, and a reduction in price has taken place since our last.—Another steamer, however, is hourly expected, and but little will be done until her accounts are received. Howard-street Flour, during the past week, ranged at \$5 62, but closed at \$5 63, and the market firmer.—City Mills, \$6—Rye Flour \$4—Corn Meal, Balt. \$2 50, Pa. \$2 37a2 50—Wheat, red, 120a125 for good to prime; some Va. white, not prime, sold at 125a130c. and prime family flour Md. white, at 140—Rye, 73c per bushel—Corn, white 43a45; yellow 45a46—Oats

38a43—Cloverseed, \$3.75a\$4.12—Flaxseed, \$1.30a1.35—Hay, by wagons, \$16a\$18 per ton—eastern press'd \$15a17—Hops, 1st, 6½c.—Molasses, N. O 26a27c; Cuba, 19a22; P. Rico, common, 21½—Pork, Mess, 10.50a11; prime \$9—Bacon, hams, 7½a8; shoulders, 5a5½c.—sides, 5½; hog round ranges at 5½a5¾—Beef, mess, \$10.50a12; No. 1, 9.50a10; prime 7.50a8—Lard, in kegs, 7½a8—Butter, western, in kegs, 13½a13; Glades 13a17c.—Rice, 3.62a3.75 per 100 lbs.—Sugars, dull, N. O. \$4.50a5.75, choice lots, 6—Wool, no sales—Whiskey, in bbls. 25½c. in hhds. 24½—Cotton, Upland, 8½c.; N. O. 8½—Cattle, prices ranged from \$2.50a3.75 per 100 lbs. on the hoof, equal to 5a7.75 nett—Hogs, live 5.87a6.37—Fish, mackerel, No. 1, 8.50a9; No. 2, \$6a6 50; No. 3, 5.25a5.55—Feathers, 30a32—Wood, hickory, 4.50; oak 3.87a4.12; Pine 2.50a3; Coal, \$6a6.25—Tobacco, receipts small of good Md. and this description is wanted, and finds ready sale, though prices showed much improvement; inferior sorts would be taken at low figures, but holders are not anxious to force sales; we quote infer. and common Md. at \$2.50; mid. to good, 3a3.50; good, \$6; and fine \$7a12; Ohio is enquired for but transactions are as yet limited to small parcels, which we quote, for com. \$3a3.50; good \$1.50a6; fine red and wrappery 10a12. The inspections for the last four weeks comprise 266 hhds. of Md.; 221 of Ohio; 4 of Pa.; 11 of Va.—Total 462 hhds.

Prices of Agricultural Manures.—Guano, Peruvian \$51 per ton of 2000 lbs.; none in first hands. We learn that there are about 200 tons in the market.—Ichaboe \$48 per ton; African \$40; Bone Dust 50 to 62 cts. per bushel, according to quality; Lime 00 cts. per bushel; Poudrette \$1.25 per bbl. or 25 cts. per bushel; Plaster, stone \$3.25 per ton, \$1.12 to \$1.25 per bbl. for ground.

THE "SIMON PURE," and invincible WILEY FLOW still in the field.—A. G. MOTT, at No. 38 Essex Street, near the Bel-Air Market—Manufacturer and Vendor of Implements of Husbandry, viz. Plows, Harrows, Cultivators, Grain-Criddles, Wheat-Fans, Corn-Shellers, Straw-Cutters, Endless chain Horse Powers, Threshing Machines, &c. &c.—through this medium, would appraise the agricultural community of the fact, that he is the only manufacturer in the "Monumental city" of the GENUINE WILEY FLOW (right and left hand) composed of the real "simon pure" and justly celebrated New York composition, chilled castings, the points of which, are warranted to stand the most rugged soil equal to steel, at a cost of about two cents per acre, for blacksmith's bill.—If you are for bargains, call, or send your orders, for he guarantees his implements good as the best, and cheap as the cheapest, for cash, and delivered in any part of the city free of charge.

LIME—LIME—The subscriber is prepared to furnish from his depot at the City Block, Baltimore, ALUM STONE LIME of the purest description, deliverable at any point on the Chesapeake Bay or its tributaries, at such prices as cannot fail to please.

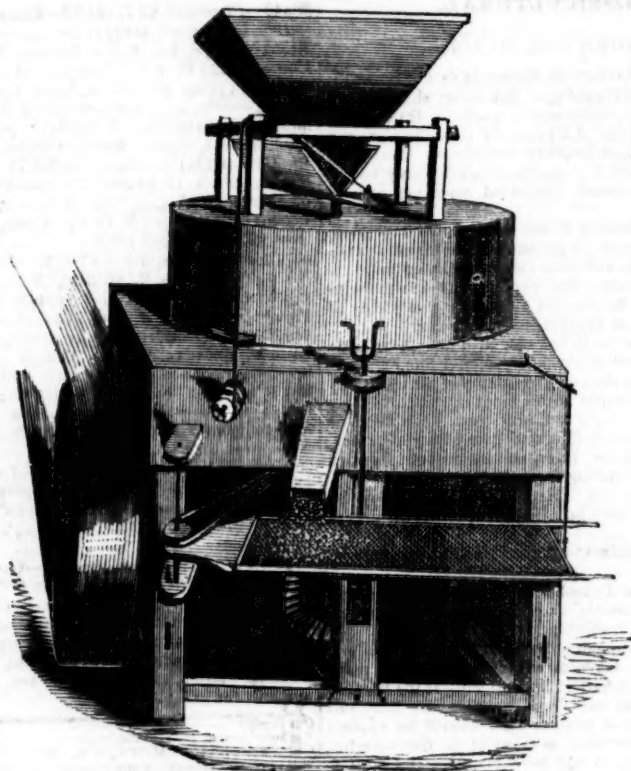
He is also prepared to furnish superior building Lime at 25c. per bushel, in hhds., or at \$1 per bbl. E. J. COOPER, City Block, Baltimore.

TO FARMERS AND PLANTERS.

A. D. CHILDS' PATENT HORSE-POWER.

PRICE \$110—or without the wood work of the sweeps \$100. The subscriber would invite his patrons and the public generally to call and examine this Horse Power for themselves, and also his Threshing Machines, as he has several on hand of superior workmanship. He has also on hand a quantity of Ploughs of all sizes and various patterns and well made, with a great variety of other implements, such as Wheat Fans, Harrows; Swingle-trees, Corn Shellers, Corn and Cob Crushers, &c. &c., which he will sell very low, as he wishes to close out his old stock, which he has been several years reducing.

Cylindrical Straw Cutters and Plough Castings on hand as Wholesale & Retail as heretofore. J. S. EASTMAN, In the rear of his old Store, No. 180 PRATT STREET, near HANOVER-ST. Entrance by alley through the Front Store. Sep 1



DRURY'S HORSE-POWER AND GRIST MILL.

THE above cut represents Chas. H. Drury's Horse Power Grist Mill. This mill is one of the most simple and durable article that can be gotten up. It will grind, on an average, four bushels of good meal in one hour, working four horses, as is testified by certificates below from gentlemen using them. The mills are fitted up with Cologne stones, 35 inches in diameter. These stones are considered to grind much better meal for present use, though not so fast as the Burr; they are much easier dressed, especially by those unaccustomed to dressing, and to dress these may be acquired in a few minutes. It is not likely any thing else will be required to be done to them for years.

In sections of country, where there is a scarcity of mill seats and on large farms where there is no scarcity of water power, these mills must be very desirable, as the saving is very great. One bushel of corn (struck measure) yields 1 bushel, 1 peck and 1 unsifted meal, (heaped measure.)

CERTIFICATES.

I am using one of Mr. C. H. Drury's Horse Power Grist Mills, and certify that I grind with four horses four bushels per hour of good meal.

Mr. Drury came to my farm to put this mill in operation and ground, with four horses, three bushels of good meal in thirty-one minutes. He then, with six horses, ground at the rate of 7½ bushels per hour. I was very accurate in testing the ability of the mill to do this work.

JOHN THOMAS.

West River, A. A. Co., Md.

I have purchased and have in use on my farm on West

River, one of C. H. Drury's Horse Power Grist Mills, and can testify with Mr. Thomas that it will do as he has stated.

THOS. I. HALL.

The Price of the Mill, with sifter complete	\$100
Do. " Horse Power, for 4, 6 or 8 horses	120
Do. " Thrashing Machine	85

The subscriber is manufacturing Plows, of the most approved patterns, Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, Corn Shellers, Grain Cradles, Horse Power Grist Mills, Horse Power and Thrashing Machines, &c. The two last named articles, with the mill, received a premium at the last Fair held at Easton, Talbot county, to which the reader is referred to the report of the Committee on Agricultural Implements, to be found in the January No. of the American Farmer.

Reference is made to the following gentlemen who are using the Power and Thresher, viz: Messrs. S. Beard, T. Beard, Dr. Watkins, J. T. Hodges, T. Welch, W. Mackall, J. Idehart, A. Sellman, R. Sellman, W. Hopkins, J. Kent, G. Wells, G. Gale, Dr. Fenwick, A. Franklin, J. C. Weems, A. C. Gibbs, Dr. J. Cheston, J. J. Gray, S. Harwood, of A. A. Co.; G. V. Weems, J. Y. Barber, R. B. Chew, W. Boswell, Z. Howet, Capt. J. Beckett, T. V. Blake, of Calvert Co.; H. G. Hayden, St. Mary's Co.; Major Stone, Charles Co.; S. Hambleton, Talbot Co.; Henry Cornick, near Norfolk, Virginia.

CHAS. H. DRURY.

Hollingsworth street, cor. of Pratt, Baltimore, Md. Mar 1

FLORISTS can be supplied with bone-dust, guano and poudrette, in small packages, for their flowers, at the book and seed store of the American Farmer, 9 Jarvis' Building, North-street.

mh. 1 SAML. SANDS.

100 WHITMAN'S PREMIUM CORN SHELLERS for sale, price \$10, \$16, and \$18.

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N. E. Corner of Light & Pratt-sts.—Baltimore.

J. I

L I M E .

THE subscribers are prepared to furnish Building and Agriculture Lime at the depot on the Back basin, corner of Eden & Lancaster streets, which they will warrant to give satisfaction, it being burnt from pure Alum Lime Stone, equal to any found in the United States. Orders may be left with William Robinson, No. 15 Hollingsworth st. near Pratt. ml.

FELL & ROBINSON, City Block.

WHITMAN'S AGRICULTURAL WAREHOUSE is now filled with the largest and best selected stock of **FARMING IMPLEMENTS** ever offered in the United States. His Premium Plow and Mear Ploughs and his Premium Cultivator and Gang Ploughs are decidedly the best in use. All who are in want of the best and most approved implements will do well to give him a call. E. WHITMAN, JR. mar. 1 Corner of Light and Pratt streets, Baltimore.

20,000 ISABELLA, CATAWBA & ALEXANDER GRAPE VINES, of suitable age and size for forming vineyards—For sale in large or small quantities on the best terms. Purchasers of vines from the subscriber will receive free of charge, a Treatise (just ready for the press), on the cultivation of American grape vines, and the manufacture of wines, treating particularly of soil, location, planting out, manuring, training and pruning—illustrated with plates.

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NEW YORK Agricultural Warehouse and SEED STORE.—The subscribers keep constantly on hand a large and complete assortment of Agricultural and Horticultural Implements, and Field and Garden seeds of all kinds.

Our implements embrace upwards of sixty different sizes and kinds of Plows, among which are the celebrated *Rugley, Murre & Mason, Eagle, Centre-draft, Self-sharpening, Side-hill, Cotton, Rice, Sugar-cane, Double Mould board, Treuching, Subsoil*, &c.; also, *Harrow, Roller, Cultivators, Corn-shellers, Straw-cutters, Wheat and Corn Mills, Horse-powers, Thrashers, Scythes, Cradles, Axes, Horse and Hand Rakes, Shovels, Spades, Hoes, Grafting Tools*, &c.

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A COMPLETE assortment of American Field and Garden Seeds, of all kinds, principally grown and put up expressly for us. ALSO—English and French Grass and other Seeds, just received. Among these are the *Perennial and Italian Ray Grass, Sweet Vernal and Oat Grass, fine mixed Lawn Grass, White Clover and Lucerne*. Also, *English Beans, Vetches, Ruta Baga Seed*, &c. &c.

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OF his justly celebrated method Mr. Bommer remarks, "It is not a theory founded upon probabilities more or less specious; I have practiced and I expose in good faith the processes of my invention, with the effects they have produced. They are explained in a way so simple that they can be easily understood and put in practice."

Chas. B. Calvert Esq., having tried this system says,

I hereby certify that I have tried the Bommer process of making manure and highly approved of the same. I have no hesitation in saying that I feel confident if the manure is carefully prepared it will compare advantageously with stable manures.

It must be apparent to every one at all conversant with agricultural chemistry, that the mineral substances used to decompose the vegetable materials are all useful stimulatory manures, and must be beneficial unless improperly used.

C. B. CALVERT.

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mar. 1

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